Access DB# 159495

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 7-18-2005
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/716,785
Mail Box and Bldg/Room Location: 9D66 Results Format Preferred (circle): PAPER DISK E-MAIL
(Rem.)

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR
Tech Inf. Ctr.
JUL 19 RECD
Pat. & T.M. Office

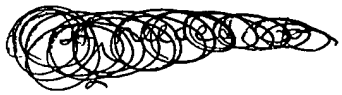
Title of Invention: Plz. see Bib.

Inventors (please provide full names):

Earliest Priority Filing Date:

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for the polymer of claim # 1.
In case you need it,
(examples for the silsesquioxane backboned
polymer are shown in Cl. #12 & 13)

(If you have any Q's,
plz. call me.)

Thanks!

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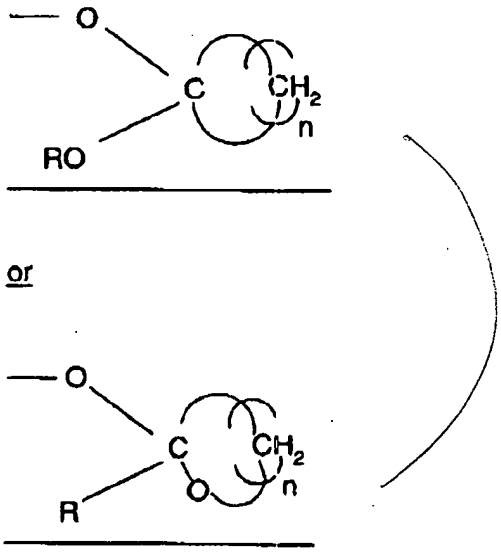
STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: Lulu	NA Sequence (#)		STN	E 381-87
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)	2	Questel/Orbit	
Date Searcher Picked Up: 7/29/05	Bibliographic		Dr.Link	
Date Completed: 7/29/05	Litigation		Lexis/Nexis	
Searcher Prep & Review Time: 60	Fulltext		Sequence Systems	
Clerical Prep Time: 30	Patent Family		WWW/Internet	
Online Time: 60	Other		Other (specify)	

PTO-1590 (8-01)

Application No. 10/715,785

Listing of Claims:

1. (Currently Amended) A resist composition, said composition comprising an acid-sensitive imaging polymer including a silsesquioxane backbone and a solubility inhibiting cyclic ketal pendant acid-labile moiety having a low activation energy for acid-catalyzed cleaving, wherein said cyclic ketal acid-labile moiety comprises a structure of the form



or

where n is any integer from 2 to 15 and R is an alkyl or a halogenated alkyl, and wherein at least a portion of said imaging polymer is fluorinated.

If I need to submit two separate searches, Please give me a call!

2. (Original) The resist composition of claim 1, further comprising a radiation-sensitive acid generator.

3. (Original) The resist composition of claim 1, wherein said imaging polymer further comprises a pendant solubility promoting moiety.

4. (Original) The resist composition of claim 3, wherein said pendant solubility promoting moiety is selected from the group consisting of a hydroxyl, a fluoroalcohol, a carboxylic acid, an amino group, an imino group, a fluorinated imino group and a fluorinated amino group.

5. (Original) The resist composition of claim 1, wherein at least a portion of said solubility inhibiting pendant cyclic ketal acid-labile moiety is fluorinated.

6. (Canceled)

7. (Original) The resist composition of claim 1, wherein said cyclic ketal acid-labile moiety is selected from the group consisting of methoxycyclopropanyl, ethoxycyclopropanyl, butoxycyclohexanyl, methoxycyclobutanyl, ethoxycyclobutanyl, methoxycyclopentanyl, ethoxycyclopentanyl, methoxycyclohexanyl, ethoxycyclohexanyl, propoxycyclohexanyl, methoxycycloheptanyl, methoxycyclooctanyl, methoxynorbornyl and methoxyadamantyl.

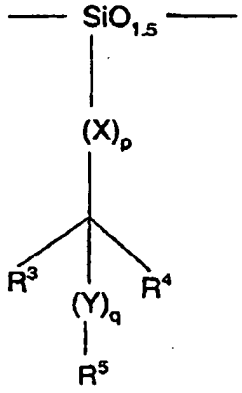
8. (Original) The resist composition of claim 1, wherein said cyclic ketal acid-labile moiety is substituted.

9. (Original) The resist composition of claim 1, wherein said cyclic ketal acid-labile moiety is substituted with fluorine or a hydrophobic moiety selected from the group consisting of —CF_3, —CHF_2, —CH_2F, —CCl_3, —$CHCl_2$ and —CH_2Cl, and —$Si(CH_3)_3$.

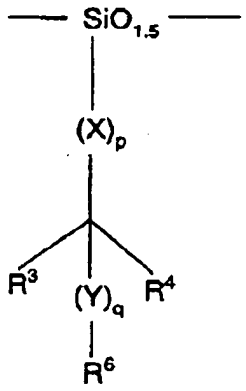
10. (Original) The resist composition of claim 3, wherein at least a portion of said solubility promoting moiety is fluorinated.

11. (Original) The resist composition of claim 1, wherein said silsesquioxane polymer has a weight average molecular weight of about 800 to 500,000.

12. (Original) The resist composition of claim 1, wherein said imaging polymer comprises a combination of monomeric units (II) and (III) described by the formulas:



(II) and



(III)

in which

each R^3 is independently selected from the group consisting of a hydrogen atom, a halogen atom, a linear alkyl, a branched alkyl, a cycloalkyl, a halogenated linear alkyl, a halogenated branched alkyl, a halogenated cycloalkyl, an aryl, a halogenated aryl, or any combination thereof,

each X is independently selected from the group consisting of an oxygen atom, a sulfur atom, NR^3, a linear alkyl, a branched alkyl, a cycloalkyl group, a halogenated linear alkyl, a halogenated branched alkyl, a halogenated cycloalkyl, an aryl group, or a halogenated aryl, wherein p is an integer having the value 1 or 0,

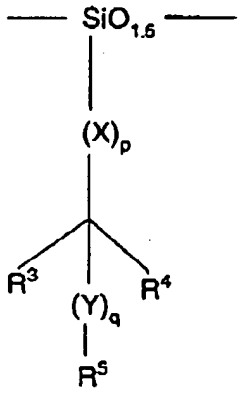
each Y is independently selected from the group consisting of a linear alkyl, a branched alkyl, a cycloalkyl group, a halogenated linear alkyl, a halogenated branched alkyl, a halogenated cycloalkyl, an aryl group, or a halogenated aryl, wherein q is an integer having the value 1 or 0,

each R^4 is independently selected from the group consisting of a fluorine atom, a fluorinated linear alkyl, a fluorinated branched alkyl, a fluorocycloalkyl, a fluoroaryl, or any combination thereof,

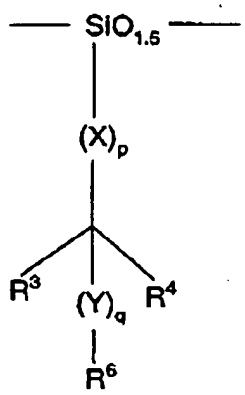
each R^5 is independently a solubility inhibiting cyclic ketal group, and

each R^6 is independently a solubility promoting group.

13. (Original) The resist composition of claim 1, wherein said imaging polymer comprises a combination of monomeric units (III) and (IV) or units (II) and (V), wherein the monomeric units (II) and (III) are described by the formulas:



(II) and



(III)

in which

each R^3 is independently selected from the group consisting of a hydrogen atom, a halogen atom, a linear alkyl, a branched alkyl, a cycloalkyl, a halogenated linear alkyl, a halogenated branched alkyl, a halogenated cycloalkyl, an aryl, a halogenated aryl, or any combination thereof,

each X is independently selected from the group consisting of an oxygen atom, a sulfur atom, NR^3, a linear alkyl, a branched alkyl, a cycloalkyl group, a halogenated linear alkyl, a halogenated branched alkyl, a halogenated cycloalkyl, an aryl group, or a halogenated aryl, wherein p is an integer having the value 1 or 0,

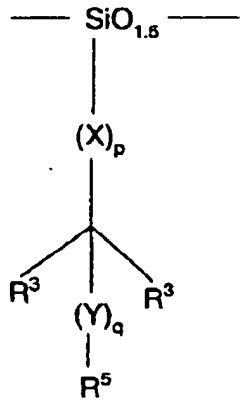
each Y is independently selected from the group consisting of a linear alkyl, a branched alkyl, a cycloalkyl group, a halogenated linear alkyl, a halogenated branched alkyl, a halogenated cycloalkyl, an aryl group, or a halogenated aryl, wherein q is an integer having the value 1 or 0,

each R^4 is independently selected from the group consisting of a fluorine atom, a fluorinated linear alkyl, fluorinated branched alkyl, a fluorocycloalkyl, a fluoroaryl, or any combination thereof,

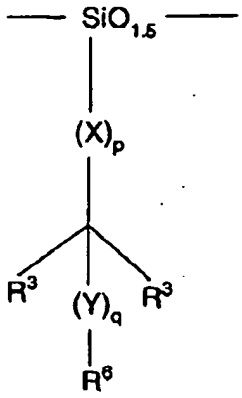
each R^5 is independently a solubility inhibiting cyclic ketal group, and

each R^6 is independently a solubility promoting group; and

the monomeric units (IV) and (V) are described by the formulas:



(IV) and

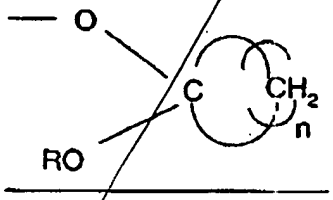


(V).

14. (Currently Amended) A method of forming a structure on a substrate, said method comprising the steps of:

providing a substrate;

applying a resist composition to said substrate to form a resist layer on said substrate, said resist composition comprising an acid-sensitive imaging polymer comprising a silsesquioxane backbone, and a solubility inhibiting pendant cyclic ketal acid-labile moiety having a low activation energy for acid-catalyzed cleaving, wherein said cyclic ketal acid-labile moiety comprises a structure of the form



or

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L2                STR

     FILE 'REGISTRY' ENTERED AT 12:58:40 ON 29 JUL 2005
L3             42 S L1
L4                SCR 2043
L5             35 S L1 AND L4
L6              5 S L1 AND L2 AND L4
L7                STR L1
L8             15 S L7
L9             59 S L1 AND L2 AND L4 FUL
                  SAV L9 LEE785/A

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L10             1 S US20050106494/PN
                  SEL RN

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L12             0 S L11 AND L9


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L13            37 S L9

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=> d que l13
L1                STR
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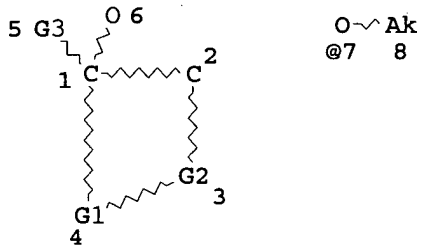


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   8

STEREO ATTRIBUTES: NONE
L2                STR
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Si~O
1 2

NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE
L4 SCR 2043
L9 59 SEA FILE=REGISTRY SSS FUL L1 AND L2 AND L4
L13 37 SEA FILE=HCAPLUS ABB=ON PLU=ON L9

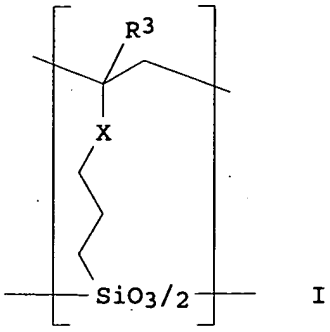
=> fil hcap
FILE 'HCAPLUS' ENTERED AT 13:52:28 ON 29 JUL 2005

=> d l13 1-37 ibib abs hitstr hitind

L13 ANSWER 1 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:492569 HCAPLUS
DOCUMENT NUMBER: 143:16513
TITLE: Silicon-containing polymers for chemically amplified resists, and method for pattern formation
INVENTOR(S): Hatakeyama, Jun; Nakajima, Atsuo
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 66 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005146131	A2	20050609	JP 2003-386228	2003 1117
PRIORITY APPLN. INFO.:			JP 2003-386228	2003 1117

GI



I

AB The polymers have repeating units CR1(CO2R2)CH2 and I (R1, R3 = H, Me, F, trifluoromethyl, cyano, CH2CO2R6, CH2OR5; R6 = H, C1-4 alkyl, acid-labile group; R5 = H, C1-4 alkyl, acyl; R2 = acid-labile group; X = CO2, O). The patterns are manufactured by applying chemical amplified pos. resists containing the polymers, acid generators, and organic solvents on substrates, heat treatment, exposure by irradiation of high-energy light at wavelength ≤300 nm or electron beam via a photomask, optionally heat treatment, and development. The patterns show high sensitivity and resolution, and improved O and Cl2/BCl3 etching resistance.

IT **852533-52-9P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-3-oxo-2,7-dioxatricyclo[4.2.1.04,8]-9-nonanyl methacrylate copolymer
852533-53-0P, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane copolymer
(silicon-containing polymers having acrylic and silsesquioxane repeating units for chemical amplified resists)

RN 852533-52-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl 2-methyl-2-propenoate and 3-(triethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

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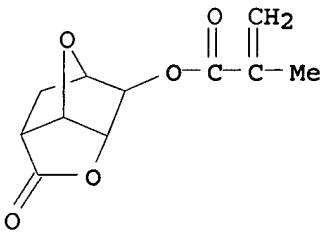
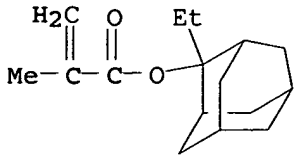
CRN 274248-05-4
CMF C11 H12 O5



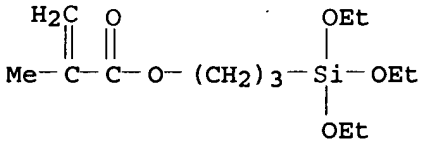
CM 2

CRN 209982-56-9
CMF C16 H24 O2



CM 3

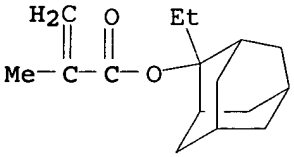
CRN 21142-29-0
CMF C13 H26 O5 Si



RN 852533-53-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 3-(triethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9
CMF C16 H24 O2



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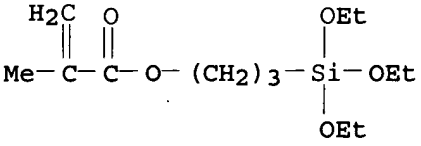
CRN 21142-29-0
CMF C13 H26 O5 Si



IT **852533-54-1P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane-3-oxo-2,7-dioxatricyclo[4.2.1.04,8]-9-

nonanyl methacrylate copolymer **852533-55-2P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane-3-oxo-2,7-dioxatricyclo[4.2.1.04,8]-9-nonanyl methacrylate-2-tert-butoxycarbonyl-5(6)-trimethoxysilylnorbornane copolymer **852533-56-3P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane copolymer **852533-57-4P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane-tetraethoxysilane copolymer
(silicon-containing polymers having acrylic and silsesquioxane repeating units for chemical amplified resists)

RN 852533-54-1 HCAPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(trimethoxysilyl)-, methyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl 2-methyl-2-propenoate and 3-(triethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

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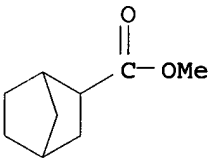
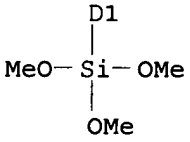
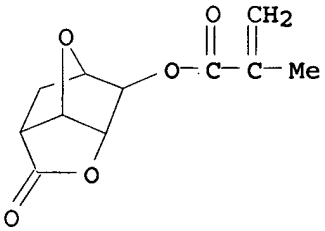
CCI IDS





CM 2

CRN 274248-05-4
CMF C11 H12 O5



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CRN 209982-56-9
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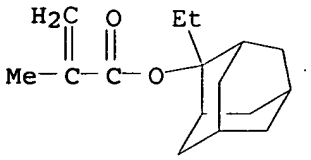

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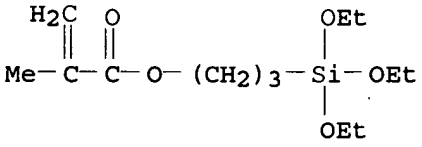
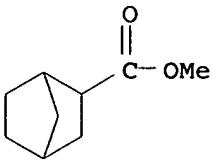
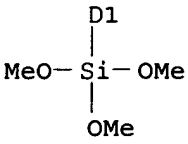


RN 852533-55-2 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(trimethoxysilyl)-, 1,1-dimethylethyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl 2-methyl-2-propenoate, methyl 5(or 6)-(trimethoxysilyl)bicyclo[2.2.1]heptane-2-carboxylate and 3-(triethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 802986-13-6
CMF C12 H22 O5 Si
CCI IDS





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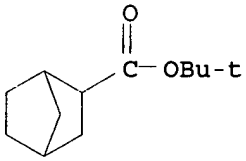
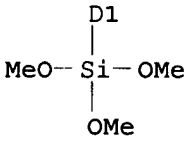
CCI IDS





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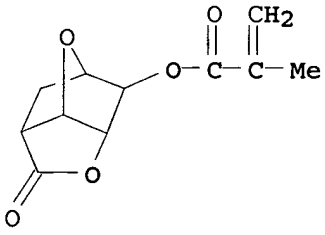

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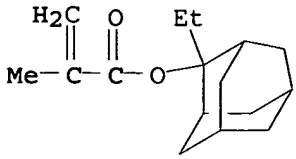

CM 5

CRN 21142-29-0
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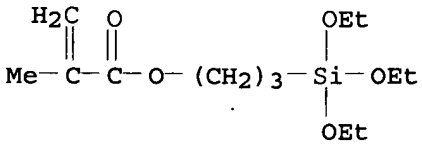
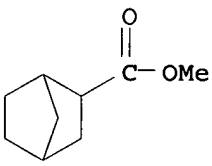
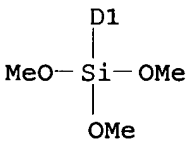


RN 852533-56-3 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(trimethoxysilyl)-, methyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and 3-(triethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 802986-13-6
CMF C12 H22 O5 Si
CCI IDS

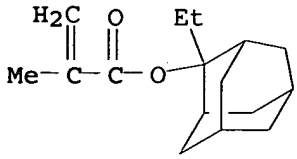




CM 2

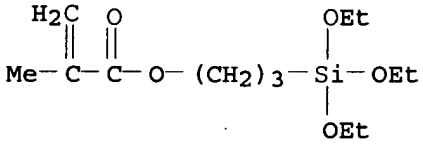
CRN 209982-56-9

CMF C16 H24 O2



CM 3

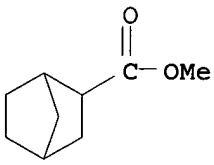
CRN 21142-29-0
CMF C13 H26 O5 Si

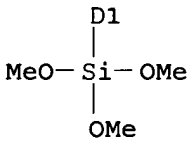


RN 852533-57-4 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(trimethoxysilyl)-, methyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and 3-(triethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

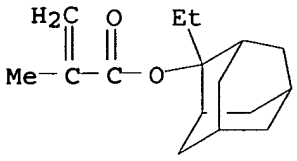
CRN 802986-13-6
CMF C12 H22 O5 Si
CCI IDS





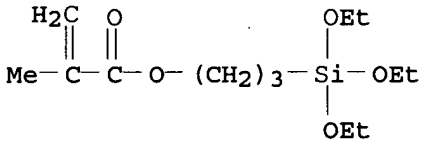
CM 2

CRN 209982-56-9
CMF C16 H24 O2



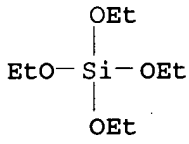
CM 3

CRN 21142-29-0
CMF C13 H26 O5 Si



CM 4

CRN 78-10-4
CMF C8 H20 O4 Si



IC ICM C08F008-42
ICS C08F230-08; C08G077-442; G03F007-039; G03F007-075; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT **852533-52-9P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-3-oxo-2,7-dioxatricyclo[4.2.1.04,8]-9-nonanyl methacrylate copolymer **852533-53-0P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane copolymer
(silicon-containing polymers having acrylic and silsesquioxane repeating units for chemical amplified resists)

IT **852533-54-1P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane-3-oxo-2,7-dioxatricyclo[4.2.1.04,8]-9-nonanyl methacrylate copolymer **852533-55-2P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane-3-oxo-2,7-dioxatricyclo[4.2.1.04,8]-9-nonanyl methacrylate-2-tert-butoxycarbonyl-5(6)-trimethoxysilylnorbornane copolymer **852533-56-3P**, 2-Ethyl-2-adamantyl methacrylate-3-

methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane copolymer **852533-57-4P**, 2-Ethyl-2-adamantyl methacrylate-3-methacryloxypropyltriethoxysilane-2-methoxycarbonyl-5(6)-trimethoxysilylnorbornane-tetraethoxysilane copolymer
(silicon-containing polymers having acrylic and silsesquioxane repeating units for chemical amplified resists)

L13 ANSWER 2 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:445384 HCAPLUS
DOCUMENT NUMBER: 142:490395
TITLE: Photoimaging compositions with high sensitivity to excimer laser and small line edge roughness
INVENTOR(S): Nishimura, Isao; Shimokawa, Tsutomu; Sugiura, Makoto
PATENT ASSIGNEE(S): JSR Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005134456	A2	20050526	JP 2003-367470	2003 1028

PRIORITY APPLN. INFO.: JP 2003-367470 2003 1028

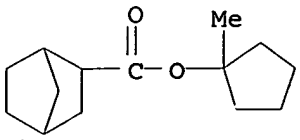
AB The compns. comprise (A) resins having repeating units OSi(R1CO2CR23)O (R1 = C1-20 hydrocarbylene, C3-20 alicyclic hydrocarbylene; R2 = C1-4 alkyl, C4-20 alicyclic hydrocarbyl, etc.), (B) resins having repeating units CR32CR3R4(CCFaH3-aCFbH3-bOR5)c (R3 = H, F, Me, CF3; R4 = C1-20 (c + 1)-valent hydrocarbon group, C3-20 (c + 1)-valent alicyclic hydrocarbon group, may contain CO2 or O; R5 = H, monovalent acid-dissociable group; a, b = 0-3; a + b ≥1; c = 1-3), and (C) photoacid generators.

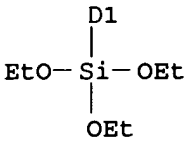
IT **851314-61-9P**
(pos. photoresists with high sensitivity to excimer laser and small line edge roughness)

RN 851314-61-9 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-, 1-methylcyclopentyl ester, polymer with triethoxymethylsilane and 5(or 6)-(triethoxysilyl)-α,α-bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol (9CI) (CA INDEX NAME)

CM 1

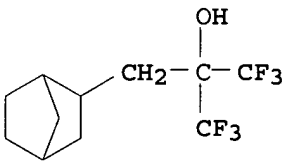
CRN 727425-18-5
CMF C20 H36 O5 Si
CCI IDS

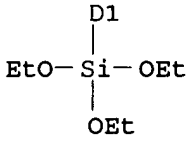




CM 2

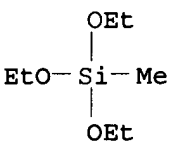
CRN 365546-74-3
CMF C17 H28 F6 O4 Si
CCI IDS





CM 3

CRN 2031-67-6
CMF C7 H18 O3 Si



IC ICM G03F007-039
ICS C08F022-20; G03F007-075; H01L021-027; C08G077-14
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 365546-85-6P 430437-18-6P **851314-61-9P** 851896-77-0P
(pos. photoresists with high sensitivity to excimer laser and

small line edge roughness)

L13 ANSWER 3 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:428333 HCAPLUS
DOCUMENT NUMBER: 142:447820
TITLE: Efficient purification of polysiloxanes
INVENTOR(S): Nishimura, Isao; Chiba, Takashi; Hayashi, Akihiro
PATENT ASSIGNEE(S): JSR Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005126592	A2	20050519	JP 2003-364632	2003 1024
PRIORITY APPLN. INFO.:			JP 2003-364632	2003 1024

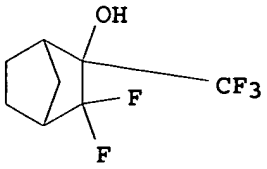
AB The purification method contains (A) mixing C1-3 mono- or polyhydric alcs. with polysiloxanes with Mw ≥1000 (as polystyrene) or their solns. in solvents (excluding C1-3 mono- or polyhydric alcs. and free OH-containing C1-10 alkyl ethers of C1-10 aliphatic polyhydric alcs.) with EtOH solubility ≥100 g/100 g at 25°, (B) adding ≥1 C5-10 hydrocarbons to the mixed solns. for phase separation, and (C) collecting the polysiloxanes from the phase of the C1-3 alcs. Alternatively, the polysiloxanes or their solns. are mixed with mixts. of water and compds. selected from C1-10 mono- or polyhydric alcs. and free OH-containing C1-10 alkyl ethers of C1-10 aliphatic polyhydric alcs. instead of with the C1-3 alcs. The polysiloxanes are useful for photoresists. Thus, mixing a 4-methyl-2-pentanone solution of methylcyclopentyl triethoxysilylnorbornanecarboxylate-bis(trifluoromethyl)hydroxyeth yl-triethoxysilylnorbornane-methyltriethoxysilane copolymer with MeOH then with n-heptane, phase-separating, and collecting the lower phase gave the polysiloxane with yield 93% and purification degree >95%.

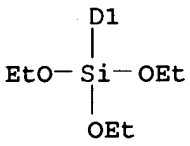
IT **727425-17-4P 851314-61-9P**
(efficient purification of polysiloxanes by solvent extraction using alcs.)

RN 727425-17-4 HCAPLUS
CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, decahydro-6(or 7)-(triethoxysilyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol and triethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

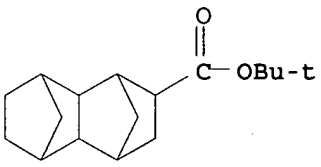
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS

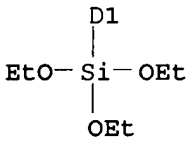




CM 2

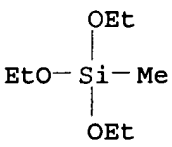
CRN 365546-67-4
CMF C23 H40 O5 Si
CCI IDS





CM 3

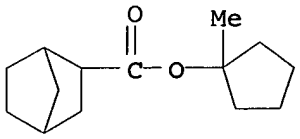
CRN 2031-67-6
CMF C7 H18 O3 Si

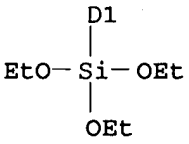


RN 851314-61-9 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-, 1-methylcyclopentyl ester, polymer with triethoxymethylsilane and 5(or 6)-(triethoxysilyl)-α,α-bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol (9CI) (CA INDEX NAME)

CM 1

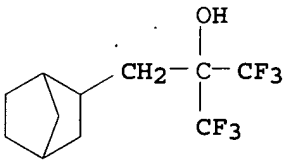
CRN 727425-18-5
CMF C20 H36 O5 Si
CCI IDS

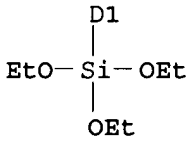




CM 2

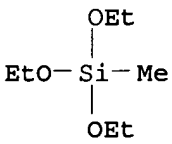
CRN 365546-74-3
CMF C17 H28 F6 O4 Si
CCI IDS





CM 3

CRN 2031-67-6
CMF C7 H18 O3 Si



IC ICM C08G077-34
ICS G03F007-075
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 74
IT **727425-17-4P 851314-61-9P**
(efficient purification of polysiloxanes by solvent extraction using alcs.)

L13 ANSWER 4 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:283568 HCAPLUS
DOCUMENT NUMBER: 142:357093
TITLE: Enzyme-containing polysiloxane sol-gels and liquid detergents prepared thereby
INVENTOR(S): Becker, Nathaniel Todd; Bakul, Dave C.; Deshpande, Kiranmayi; Gebert, Mark S.; Mcauliffe, Joseph C.; Smith, Wyatt Charles
PATENT ASSIGNEE(S): Genencor International, Inc., USA; Southern Illinois University
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005028604	A1	20050331	WO 2004-US30990	2004 0917

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-504155P P 2003 0919

AB An enzyme-containing sol-gel composition, wherein enzymes are stably entrapped within the gels and are released from the gels in responsive to an increase in environmental water percentage, is prepared from aminoalkylsilane precursors selected from bis(trialkoxyalkylsilane)amine,bis(trialkoxyalkylsilane)alkylenediamine, bis(dialkyldialkoxysilane)amine, and aminoalkyltrialkoxysilane, one or more alkoxysilane precursor, such as dialkyldialkoxysilane and alkyltrialkoxysilane, neg. charged silane precursor, such as trialkoxysilylalkyl succinic anhydride, disaccharides, polysaccharides, polyvinyl alc., polyethylene glycol, and polypropylene glycol. A liquid detergent, a liquid soap, or a shampoo formulation comprising the above

enzyme-entrapped sol-gel system, is also provided. Thus, 3-(triethoxysilyl)propylsuccinic anhydride, dimethyldimethoxysilane, and bis[3-(trimethoxysilyl)propyl]ethylene diamine were polymerized in the presence of protease to prepare a sol-gel for liquid detergent.

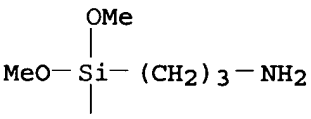
IT **848813-17-2**
(enzyme-containing polysiloxane sol-gels for liquid detergents)

RN 848813-17-2 HCAPLUS

CN α-D-Glucopyranoside, β-D-fructofuranosyl, polymer with dimethoxydimethylsilane, trimethoxymethylsilane and 3-(trimethoxysilyl)-1-propanamine (9CI) (CA INDEX NAME)

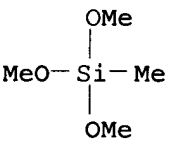
CM 1

CRN 13822-56-5
CMF C6 H17 N O3 Si



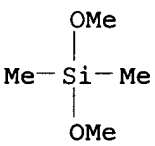
CM 2

CRN 1185-55-3
CMF C4 H12 O3 Si



CM 3

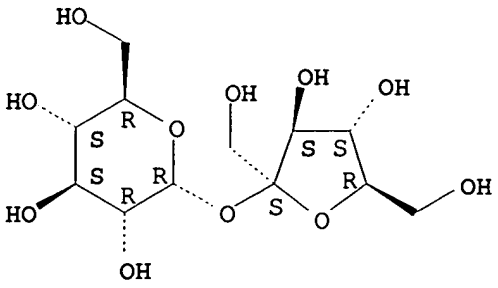
CRN 1112-39-6
CMF C4 H12 O2 Si



CM 4

CRN 57-50-1
CMF C12 H22 O11

Absolute stereochemistry.



IC ICM C11D003-20
ICS C11D007-02; B01J013-00
CC 46-6 (Surface Active Agents and Detergents)
Section cross-reference(s): 7
IT 9000-92-4, Amylase 9001-05-2, Catalase 9001-62-1, Lipase 9001-92-7, Proteinase 9003-99-0, Peroxidase 9012-54-8, Cellulase 9014-01-1, Subtilisin 9032-75-1, Pectinase 42613-30-9, Ligninase 60748-69-8, Mannanase **848813-17-2** 848813-18-3
(enzyme-containing polysiloxane sol-gels for liquid detergents)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:98047 HCAPLUS
DOCUMENT NUMBER: 142:186544
TITLE: Fluorine-substituted alicyclic group-containing polysiloxanes and their radiation-sensitive resists
INVENTOR(S): Chiba, Takashi; Shimokawa, Tsutomu; Hayashi, Akihiro; Itani, Toshio; Miyoshi, Yasuo; Furukawa, Takamitsu
PATENT ASSIGNEE(S): JSR Ltd., Japan; Semiconductor Leading Technologies Inc.
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005029742	A2	20050203	JP 2003-273289	2003 0711
PRIORITY APPLN. INFO.:			JP 2003-273289	2003 0711

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The polysiloxanes, showing Mw 500-1,000,000 measured by GPC, have structural repeating units I and/or II, and III and/or IV [B = H, F; X1, X2 = H, C1-20 (halogenated) hydrocarbyl, halo, amino; m, n = 0, 1; p = 1-10]. The resists contain alkali-insol. polysiloxanes bearing acid-dissociable groups and becoming alkali-soluble upon dissociation of the groups chosen from the aforementioned polysiloxanes, and photoacid generators. The resists show good transparency to excimer lasers and coating property, and produce high-resolution images.

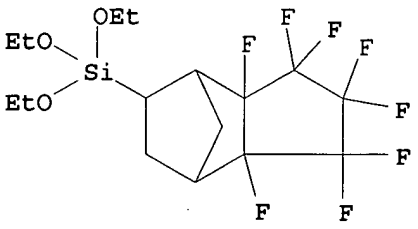
IT **830327-89-4P**
(fluorine-substituted alicyclic group-containing polysiloxanes for radiation-sensitive resists showing good transparency to excimer laser)

RN 830327-89-4 HCAPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol, triethoxy(1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl)silane and triethoxysilane (9CI) (CA INDEX NAME)

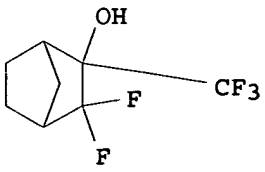
CM 1

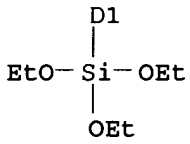
CRN 778593-48-9
CMF C16 H22 F8 O3 Si



CM 2

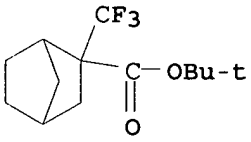
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS

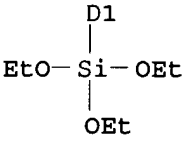




CM 3

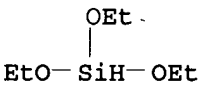
CRN 474559-06-3
CMF C19 H33 F3 O5 Si
CCI IDS





CM 4

CRN 998-30-1
CMF C6 H16 O3 Si



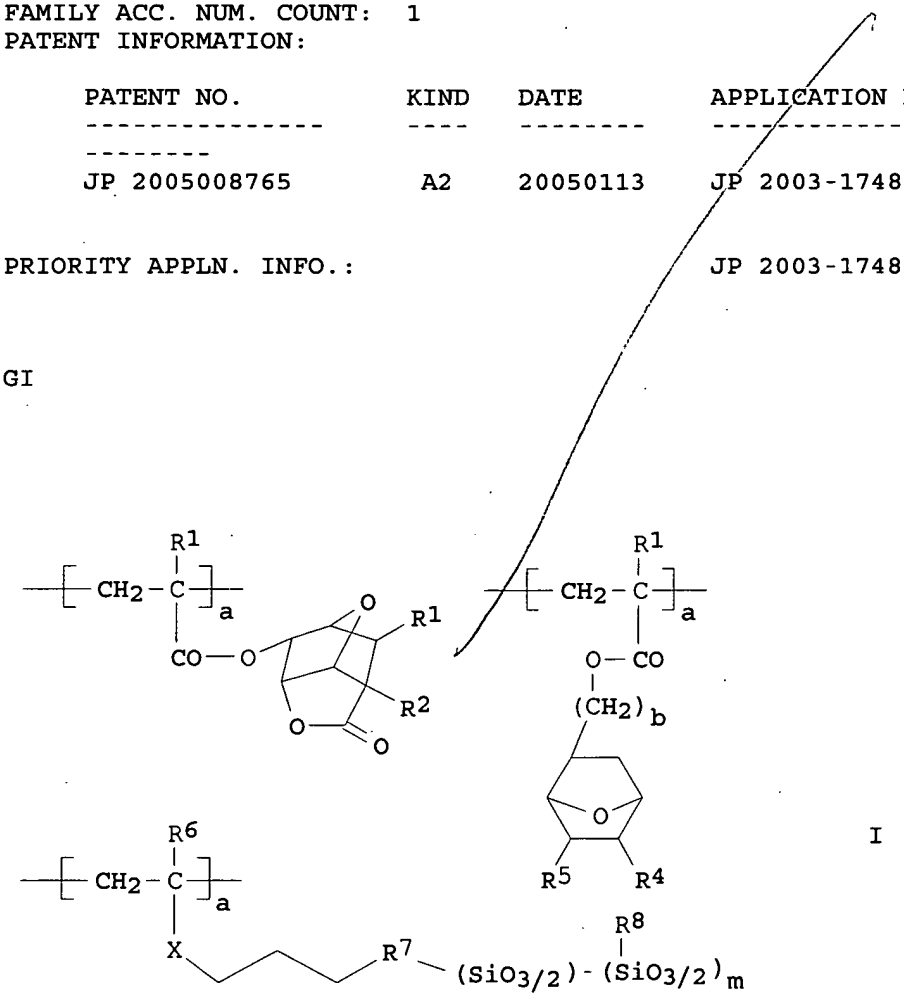
IC ICM C08G077-24
ICS G03F007-075; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 29, 35, 38
IT **830327-89-4P**
(fluorine-substituted alicyclic group-containing polysiloxanes for radiation-sensitive resists showing good transparency to excimer laser)

L13 ANSWER 6 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:33606 HCAPLUS
DOCUMENT NUMBER: 142:103181
TITLE: Acrylic polymers, their chemically amplified positive photoresists with high resolution and sensitivity and suppressed line edge roughness, and photolithography using them
INVENTOR(S): Hatakeyama, Jun; Watanabe, Takeshi; Takeda, Takanobu
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005008765	A2	20050113	JP 2003-174894	2003 0619

PRIORITY APPLN. INFO.: JP 2003-174894 2003 0619

GI



I

AB The acrylic polymers contain repeating units I [R1, R6 = H, Me, F, CF3, CN, CH2CO2R12, CH2OR13; R2 = H, Me, CN; R3 = H, ester; R4, R5 = H, ester, lactone-containing group; R8 = H, C1-10 alkyl, fluorinated alkyl; R7 = single bond, (SiR9R10R11)n; R9, R10 = C1-10 alkyl; R11 = single bond, O, C1-4 alkylene; X = ester, ether; a, b ≥0; c >0; 0 < (a + b)/(a + b + c) < 0.8; 0 < c/(a + b + c) < 0.5; m = 4-40; n = 1-20; p = 0-2; R12 = C1-4 alkyl; R13 = H, C1-4 alkyl,

C1-4 acyl] and other repeating units that increase alkali solubility of the polymers in the presence of acids. The photolithog. may involve etching with O plasma or halogen gases containing Cl or Br.

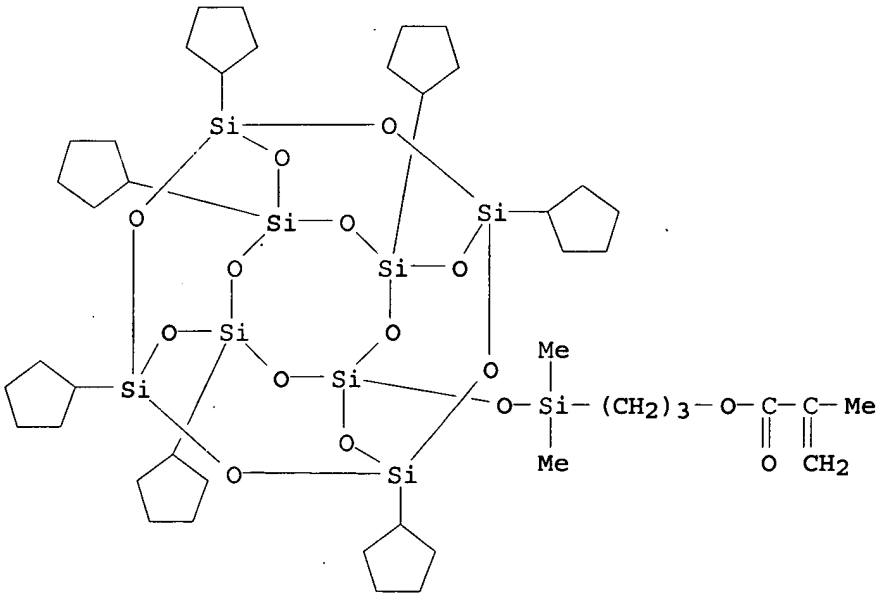
IT **819837-23-5P**
(acrylic polymers having oxonorbornane and polyhedral oligosilsesquioxane pendants for pos. photoresists with high resolution and suppressed line edge roughness)

RN 819837-23-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 3-[[(heptacyclopentylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl)oxy]dimethylsilyl]propyl 2-methyl-2-propenoate and hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

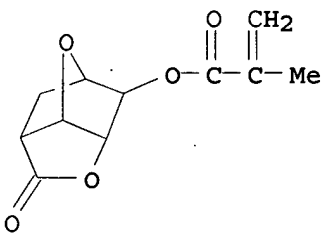
CM 1

CRN 312693-41-7
CMF C44 H80 O15 Si9



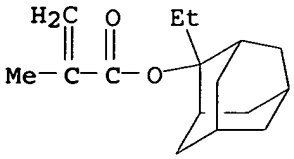
CM 2

CRN 274248-05-4
CMF C11 H12 O5



CM 3

CRN 209982-56-9
CMF C16 H24 O2



IC ICM C08F230-08
ICS G03F007-039; G03F007-075
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 819837-18-8P 819837-20-2P 819837-22-4P **819837-23-5P**
819837-25-7P 819837-27-9P 819837-29-1P 819837-31-5P
819837-32-6P 819837-34-8P
(acrylic polymers having oxonorbornane and polyhedral oligosilsesquioxane pendants for pos. photoresists with high resolution and suppressed line edge roughness)

L13 ANSWER 7 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1036753 HCAPLUS
DOCUMENT NUMBER: 142:30014
TITLE: Silicon-containing polymer, resist composition and patterning process
INVENTOR(S): Hatakeyama, Jun; Takeda, Takanobu
PATENT ASSIGNEE(S): Japan
SOURCE: U.S. Pat. Appl. Publ., 38 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

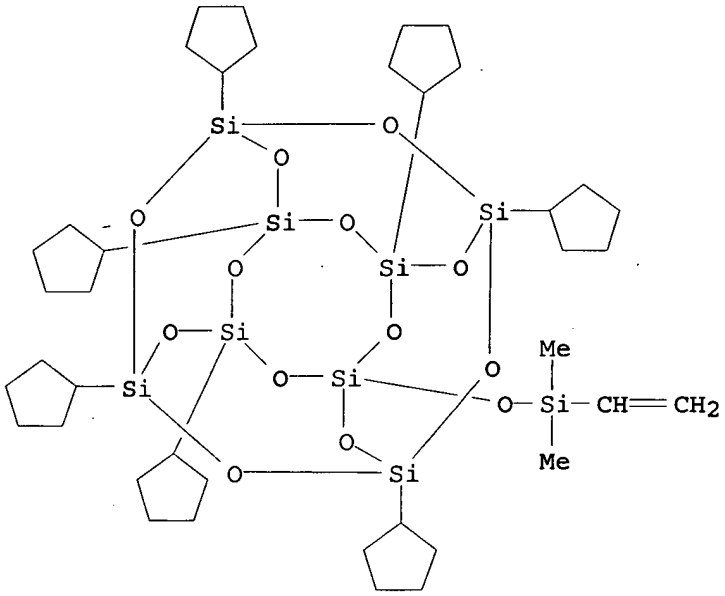
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004242821	A1	20041202	US 2004-853783	2004 0526
JP 2004352743	A2	20041216	JP 2003-148656	2003 0527
PRIORITY APPLN. INFO.:			JP 2003-148656 A	2003 0527

AB Novel silicon-containing polymers are provided comprising recurring units having a POSS pendant and units which improve alkali solubility under the action of an acid. Resist compns. comprising the polymers are sensitive to high-energy radiation and have a high sensitivity and resolution at a wavelength of up to 300 nm and improved resistance to oxygen plasma etching.

IT **802917-24-4P**
(silicon-containing polymer, resist composition and patterning process)
RN 802917-24-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with heptacyclopentyl[(ethenyldimethylsilyl)oxy]pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxane and methyl ethenesulfonate (9CI) (CA INDEX NAME)

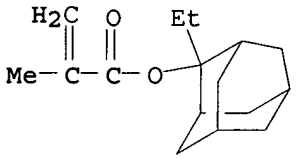
CM 1

CRN 312693-40-6
CMF C39 H72 O13 Si9



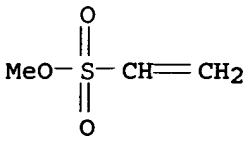
CM 2

CRN 209982-56-9
CMF C16 H24 O2



CM 3

CRN 1562-31-8
CMF C3 H6 O3 S



IC ICM G03F007-004
ICS C08F122-04; C08F222-04
INCL 526250000; 430270100; 430322000; 430330000; 526271000; 526279000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 802917-18-6P 802917-19-7P 802917-20-0P 802917-21-1P
802917-22-2P 802917-23-3P **802917-24-4P** 802917-25-5P
(silicon-containing polymer, resist composition and patterning process)

L13 ANSWER 8 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1014396 HCAPLUS
DOCUMENT NUMBER: 142:29994
TITLE: Polymer compound, positive-working chemical amplification resist material containing polysilsesquioxane having hydroxyindane pendant group, and method of patterning using the same
INVENTOR(S): Hatakeyama, Jun; Nakajima, Atsuo
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004331854	A2	20041125	JP 2003-131084	2003 0509

PRIORITY APPLN. INFO.: JP 2003-131084 2003 0509

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
*

AB Disclosed is the polymer compound which contains a repeating unit I (R1 = hydroxy, acid unstable group; m = 1-4; and $1 \leq x \leq 1.5$). In addition to I, the polymer compound contains II. Further, in addition to I, the polymer compound contains III ($1 \leq y \leq 1.5$). Further in addition to I, the compound contains IV (R3 = acid unstable group; R4,5 = H, substituent; and n = 1, 2). Also disclosed is the plasma etching using O2 or a gas

containing Cl or Br as an etchant for patterning. For an exposure, UV light or an electron beam may be used.

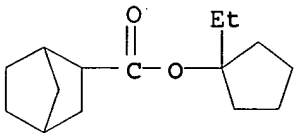
IT **800397-95-9**
(pos.-working chemical amplification resist material containing polysilsesquioxane having hydroxyindane pendant group)

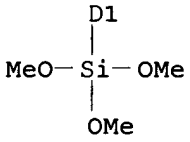
RN 800397-95-9 HCAPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(trimethoxysilyl)-, 1-ethylcyclopentyl ester, polymer with 2,3-dihydro-2(or 3)-(trimethoxysilyl)-1H-inden-5-ol (9CI) (CA INDEX NAME)

CM 1

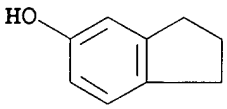
CRN 800397-94-8
CMF C18 H32 O5 Si
CCI IDS

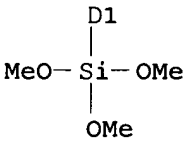




CM 2

CRN 800397-90-4
CMF C12 H18 O4 Si
CCI IDS





IC ICM C08G077-14
ICS G03F007-039; G03F007-075; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38

IT 800397-91-5 800397-92-6 **800397-95-9**

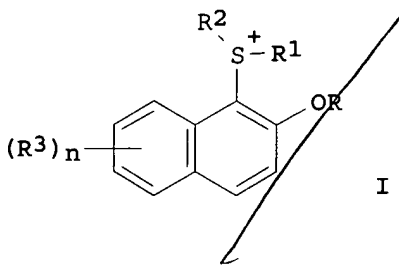
(pos.-working chemical amplification resist material containing polysilsesquioxane having hydroxyindane pendant group)

L13 ANSWER 9 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:995698 HCAPLUS
DOCUMENT NUMBER: 141:429658
TITLE: Photoacid generators for chemically amplified resist compositions and patterning process
INVENTOR(S): Ohsawa, Youichi; Kobayashi, Katsuhiro; Kaneko, Tatsushi
PATENT ASSIGNEE(S): Japan
SOURCE: U.S. Pat. Appl. Publ., 29 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004229162	A1	20041118	US 2004-842719	20040511
JP 2004334060	A2	20041125	JP 2003-132523	20030512

PRIORITY APPLN. INFO.: JP 2003-132523 A 20030512

OTHER SOURCE(S): MARPAT 141:429658
GI



I

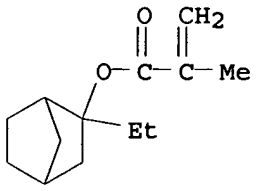
AB Disclosed are photoacid generators of the general formula I (R1, R2 = alkyl, R1 and R2, taken together, may form a C4-6-ring structure with sulfur; R = H, alkyl; R3 = H, alkyl, alkoxyl, nitro; n = 1-6; and Y- = alkylsulfonate, arylsulfonate, bisalkylsulfonylimide or trisalkylsulfonylmethide). Chemical amplified resist compns. comprising the inventive photoacid generators have improved resolution, thermal stability, storage stability and minimized line edge roughness.

IT **795311-98-7**
(photoresist resin; photoacid generators for chemical amplified resist compns. and patterning process)

RN 795311-98-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with ethenylpentamethyldisiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

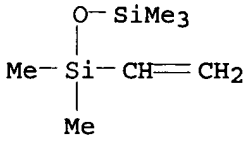
CM 1

CRN 330595-98-7
CMF C13 H20 O2



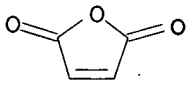
CM 2

CRN 1438-79-5
CMF C7 H18 O Si2



CM 3

CRN 108-31-6
CMF C4 H2 O3



IC ICM G03C001-76
INCL 430270100; 430311000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 155040-27-0 158593-28-3 177034-75-2 200808-68-0
301153-46-8 326925-68-2 330596-02-6 336620-26-9
485819-00-9 485819-02-1 490040-72-7 595558-21-7
601520-54-1 601520-57-4 601520-61-0 601520-62-1
601520-65-4 635715-39-8 795311-87-4 795311-88-5
795311-89-6 795311-90-9 795311-92-1 795311-93-2
795311-95-4 795311-97-6 **795311-98-7** 795311-99-8
(photoresist resin; photoacid generators for chemical amplified resist compns. and patterning process)

L13 ANSWER 10 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:816602 HCAPLUS
DOCUMENT NUMBER: 141:322563

TITLE: Polysiloxane substituted with blocked acidic group and photocurable composition for formation of pattern
INVENTOR(S): Takahashi, Hideyuki; Ishizeki, Kenji
PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004277493	A2	20041007	JP 2003-68215	2003 0313

PRIORITY APPLN. INFO.: JP 2003-68215 2003 0313

AB The polymer has polysiloxane structure (SiR1R2O)nSiR1R2R3 [I; R1, R2 = H, (cyclo)alkyl, aryl; R3 = H, C1-10 organic group; n = 1-200] and 1-95 weight% of blocked acidic substituents. The polysiloxane may be substituted with fluoroalkyl on ≥2 H. The photocurable composition contains the polysiloxane, another polymer, and a photosensitive acid-generating agent. The another polymer is substituted with blocked acidic groups and is free from structure I and from I whose ≥2 H are replaced by F-substituted C≤20 alkyl. The composition is useful for a precisely patterned mask for preparation of elec. circuits, which shows enhanced ink repellency.

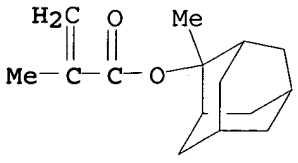
IT **763105-69-7P**
(polysiloxane substituted with blocked acidic group for photocurable composition for formation of ink-repellent pattern)

RN 763105-69-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with α-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-ω-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

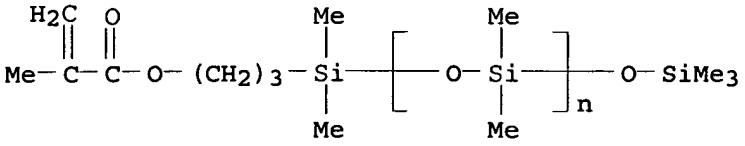
CM 1

CRN 177080-67-0
CMF C15 H22 O2



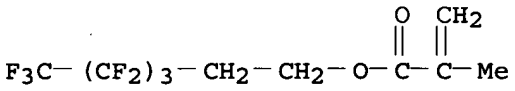
CM 2

CRN 123109-42-2
CMF (C2 H6 O Si)n C12 H26 O3 Si2
CCI PMS



CM 3

CRN 1799-84-4
CMF C10 H9 F9 O2



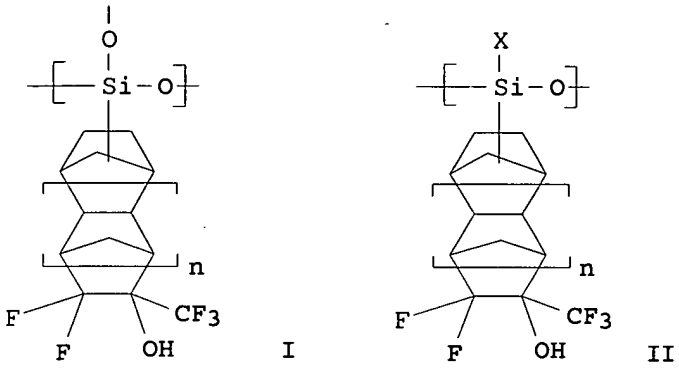
IC ICM C08F290-06
ICS G03F007-039; G03F007-075; H01L021-027; C08G077-42
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 79-41-4DP, Methacrylic acid, polymer with polysiloxane methacrylate and fluoroalkyl methacrylate 2144-53-8DP, polymer with polysiloxane methacrylate and methacrylic acid 177080-67-0DP, 2-Methyl-2-adamantyl methacrylate, polymer with polysiloxane methacrylate and fluoroalkyl methacrylate
763105-69-7P
(polysiloxane substituted with blocked acidic group for photocurable composition for formation of ink-repellent pattern)

L13 ANSWER 11 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:609279 HCAPLUS
DOCUMENT NUMBER: 141:148104
TITLE: Fluorinated norbornene compounds, silicon-containing derivatives of them, polysiloxanes from them, and radiation-sensitive compositions containing them
INVENTOR(S): Chiba, Takashi; Shimokawa, Tsutomu; Hayashi, Akihiro; Sugie, Norihiko
PATENT ASSIGNEE(S): JSR Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004210771	A2	20040729	JP 2003-420199	

2003
1217
PRIORITY APPLN. INFO.: JP 2002-365297 A
2002
1217

OTHER SOURCE(S): MARPAT 141:148104
GI



AB The compns., useful for photoresists with good sensitivity to excimer lasers, resolution, and dry-etching resistance, contain the polysiloxanes (Mw 500-1,000,000, which are alkali-insol. but become alkali-soluble by dissociation of acid-labile groups) having units I and/or II [n = 0, 1; X = H, C1-20 (halogenated) hydrocarbyl, halo, amino] and radiation-sensitive photoacid generators.

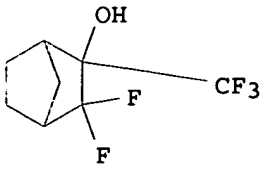
IT **727425-13-0P 727425-14-1P 727425-16-3P**
727425-17-4P 727425-19-6P 727425-20-9P
727425-22-1P
(radiation-sensitive photoresists containing polysiloxanes bearing fluorinated norbornene groups with good sensitivity, resolution, and dry etching resistance)

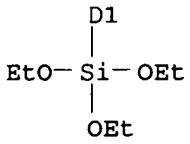
RN 727425-13-0 HCAPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol (9CI) (CA INDEX NAME)

CM 1

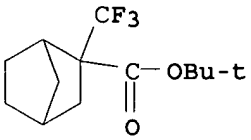
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS

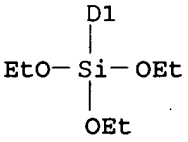




CM 2

CRN 474559-06-3
CMF C19 H33 F3 O5 Si
CCI IDS

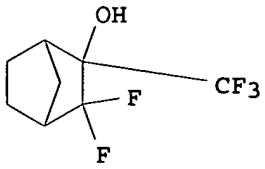


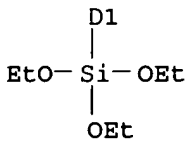


RN 727425-14-1 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol and 5(or 6)-(triethoxysilyl)-α,α-bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol (9CI) (CA INDEX NAME)

CM 1

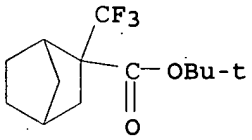
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS

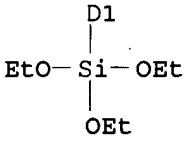




CM 2

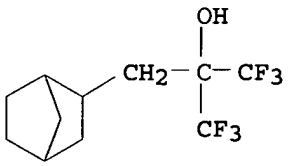
CRN 474559-06-3
CMF C19 H33 F3 O5 Si
CCI IDS

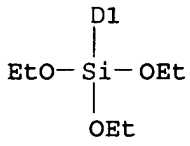




CM 3

CRN 365546-74-3
CMF C17 H28 F6 O4 Si
CCI IDS

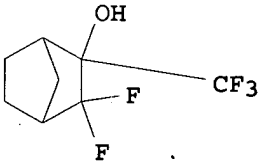


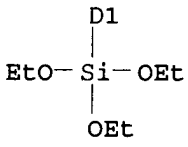


RN 727425-16-3 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol and triethoxy[5,5,6(or 5,6,6)-trifluoro-6(or 5)-(heptafluoropropoxy)bicyclo[2.2.1]hept-2-yl]silane (9CI) (CA INDEX NAME)

CM 1

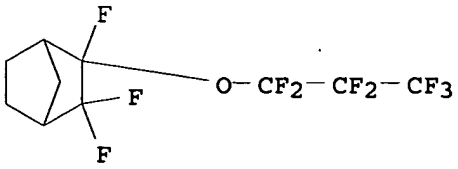
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS

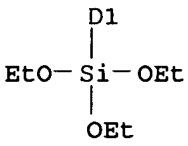




CM 2

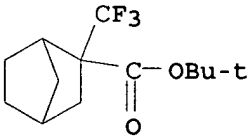
CRN 677308-22-4
CMF C16 H22 F10 O4 Si
CCI IDS

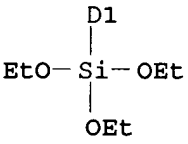




CM 3

CRN 474559-06-3
CMF C19 H33 F3 O5 Si
CCI IDS

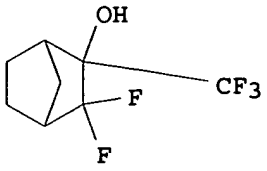


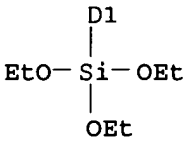


RN 727425-17-4 HCAPLUS
CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, decahydro-6(or 7)-(triethoxysilyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol and triethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

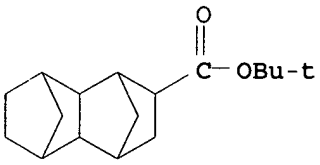
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS

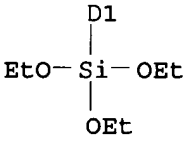




CM 2

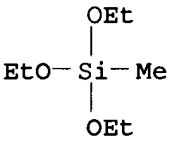
CRN 365546-67-4
CMF C23 H40 O5 Si
CCI IDS





CM 3

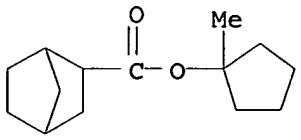
CRN 2031-67-6
CMF C7 H18 O3 Si

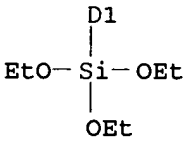


RN 727425-19-6 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-, 1-methylcyclopentyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol and triethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

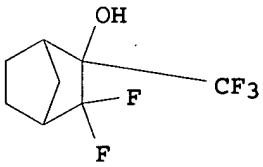
CRN 727425-18-5
CMF C20 H36 O5 Si
CCI IDS

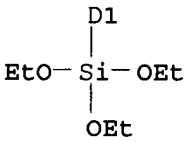




CM 2

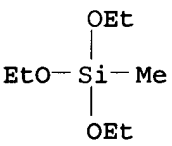
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS





CM 3

CRN 2031-67-6
CMF C7 H18 O3 Si

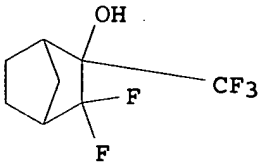


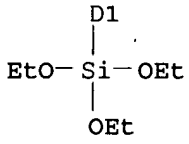
RN 727425-20-9 HCAPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]heptan-2-ol and triethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

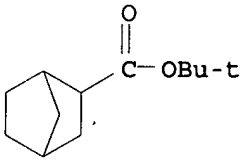
CRN 727425-11-8
CMF C14 H23 F5 O4 Si
CCI IDS

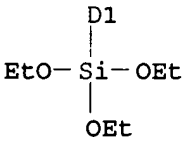




CM 2

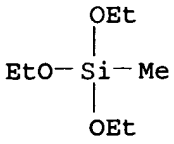
CRN 365546-63-0
CMF C18 H34 O5 Si
CCI IDS





CM 3

CRN 2031-67-6
CMF C7 H18 O3 Si



RN 727425-22-1 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluorodecahydro-6(or 7)-(triethoxysilyl)-2-(trifluoromethyl)-1,4:5,8-dimethanonaphthalen-2-ol and 5(or 6)-(triethoxysilyl)-α,α-bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 727425-12-9
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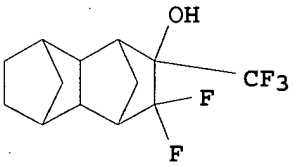
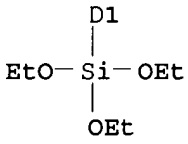
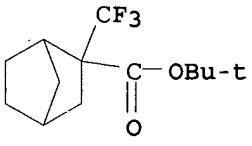
CCI IDS

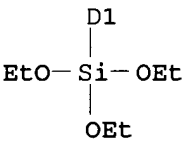




CM 2

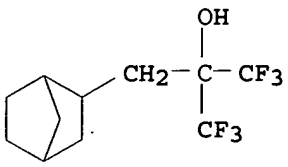
CRN 474559-06-3
CMF C19 H33 F3 O5 Si
CCI IDS

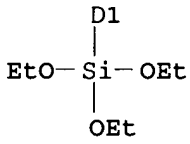




CM 3

CRN 365546-74-3
CMF C17 H28 F6 O4 Si
CCI IDS





IC ICM C07F007-18
ICS C07C035-52; C08G077-24; G03F007-039; G03F007-075; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 24, 38
IT **727425-13-0P 727425-14-1P 727425-16-3P 727425-17-4P 727425-19-6P 727425-20-9P 727425-22-1P**
(radiation-sensitive photoresists containing polysiloxanes bearing fluorinated norbornene groups with good sensitivity, resolution, and dry etching resistance)

L13 ANSWER 12 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:203439 HCAPLUS
DOCUMENT NUMBER: 140:261399
TITLE: Low silicon-outgassing resist for bilayer lithography
INVENTOR(S): Khojasteh, Mahmoud M.; Kwong, Ranee W.; Chen, Kuang-Jung; Varanasi, Pushkara Rao; Allen, Robert D.; Brock, Phillip; Houle, Frances; Sooriyakumaran, Ratnam
PATENT ASSIGNEE(S): International Business Machines Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048187	A1	20040311	US 2002-241937	2002 0911

US 6770419 B2 20040803
WO 2004068243 A1 20040812 WO 2003-US28770
2003
0911
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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG
EP 1546813 A1 20050629 EP 2003-815294
2003
0911
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, HU, SK
PRIORITY APPLN. INFO.: US 2002-241937 A
2002
0911

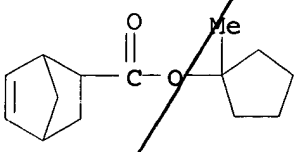
WO 2003-US28770 W
2003
0911

AB The silicon-containing resist compns. which have low silicon outgassing and high resolution lithog. performance, especially in bilayer or multilayer lithog. applications using 193 nm or shorter wavelength imaging radiation are enabled by the presence of an imaging polymer having silicon-containing, non-acid-labile pendant groups. The resist compns. of the invention are preferably further characterized by the substantial absence of silicon-containing acid-labile moieties.

IT **669067-95-2P**
(low silicon-outgassing resist for bilayer lithog.)
RN 669067-95-2 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1-methylcyclopentyl ester, polymer with 3-ethenyl-1,1,1,3,5,5,5-heptamethyltrisiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

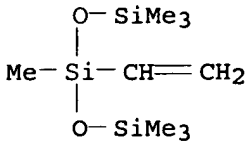
CM 1

CRN 369648-89-5
CMF C14 H20 O2



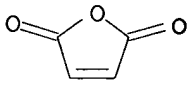
CM 2

CRN 5356-85-4
CMF C9 H24 O2 Si3



CM 3

CRN 108-31-6
CMF C4 H2 O3



IC ICM G03F007-038
ICS G03F007-38
INCL 430270100; 430313000; 430330000; 430905000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 669067-94-1P **669067-95-2P**
(low silicon-outgassing resist for bilayer lithog.)
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 13 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:76052 HCAPLUS
DOCUMENT NUMBER: 140:112703
TITLE: vulcanizable fluoropolyether compositions with high transparency and good water, oil, chemical and weather resistance and rubber article
INVENTOR(S): Koike, Noriyuki; Matsuda, Takashi; Sakano, Yasunori
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1384741	A1	20040128	EP 2003-254592	20030722

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,

	EE, HU, SK			
JP 2004051834	A2	20040219	JP 2002-212658	2002 0722
US 2004034135	A1	20040219	US 2003-621389	2003 0718
PRIORITY APPLN. INFO.:			JP 2002-212658 A	2002 0722

AB The composition comprises (A) a fluoropolyether compound containing alkenyl radicals in concentration 3 x 10-3 mol/g and having fluorine content ≥40%, (B) a curing agent containing a fluorinated organosilicon compound [H(R)2SiO1/2]n+2[RfSiO3/2]n (R = C1-3 alkyl; Rf = partially fluorinated C3-16 alkyl, partially fluorinated ether bond-containing monovalent saturated radical; n = 1.5-6.0) which is fully soluble in the fluoropolyether compound, and (C) a hydrosilylation catalyst,. The rubber composition is vulcanizable at room temperature or under heat and has low viscosity, transparency, and improved water and oil repellency, and solvent, chemical and weather resistance.

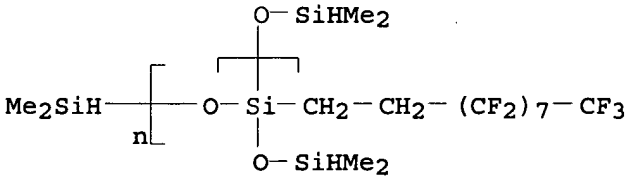
IT **648414-70-4P**
(rubber; vulcanizable fluoropolyether compns. with high transparency and good water, oil, chemical and weather resistance)

RN 648414-70-4 HCAPLUS

CN Cyclohexanol, 1-ethynyl-, polymer with α-(dimethylsilyl)-ω-[(dimethylsilyl)oxy]poly[oxy[1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-3,3-dimethyldisiloxanylidene]] and α,α'-(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis[ω-[[[[3-(ethenyldimethylsilyl)phenyl]methylamino]carbonyl]oxy]poly[oxy[trifluoro(trifluoromethyl)-1,2-ethanediyl]]] (9CI) (CA INDEX NAME)

CM 1

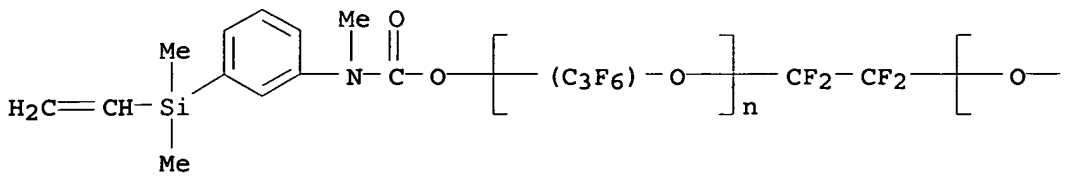
CRN 648414-69-1
CMF (C12 H11 F17 O2 Si2)n C4 H14 O Si2
CCI PMS



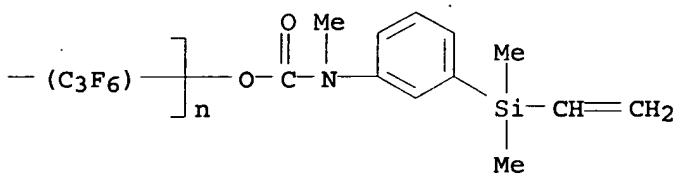
CM 2

CRN 648414-68-0
CMF (C3 F6 O)n (C3 F6 O)n C26 H32 F4 N2 O4 Si2
CCI IDS, PMS

PAGE 1-A

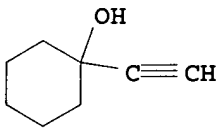


PAGE 1-B



CM 3

CRN 78-27-3
CMF C8 H12 O

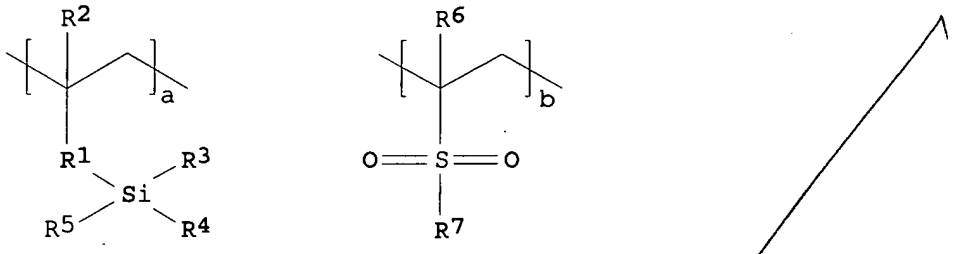


IC ICM C08G065-00
ICS C08G065-336; C08L071-02
CC 39-15 (Synthetic Elastomers and Natural Rubber)
IT **648414-70-4P**
(rubber; vulcanizable fluoropolyether compns. with high transparency and good water, oil, chemical and weather resistance)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 14 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:59649 HCAPLUS
DOCUMENT NUMBER: 140:136424
TITLE: Silicon-containing polymer, photoresist composition and patterning process
INVENTOR(S): Hatakeyama, Jun; Takeda, Takanobu; Ishihara, Toshinobu
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
SOURCE: U.S. Pat. Appl. Publ., 36 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004013980	A1	20040122	US 2003-611261	2003 0702
US 6919161	B2	20050719		
JP 2004083873	A2	20040318	JP 2003-180392	2003 0625
PRIORITY APPLN. INFO.:			JP 2002-192910 A	2002 0702

GI



I

AB The present invention relates to silicon-containing polymers comprising recurring units of I (R1 = single bond, alkylene; R2 = hydrogen, alkyl; R3-5 = alkyl, haloalkyl, aryl or silicon-containing group; R6 = hydrogen, Me, cyano or -C(=O)OR8; R8 = hydrogen, alkyl, acid labile group; R7 = alkyl, -NR9R10, -OR11; R9-11 = hydrogen or alkyl; a, b = pos. nos. satisfying 0<a+b≤1). Resist compns. comprising the polymers are sensitive to high-energy radiation and have a high sensitivity and resolution at a wavelength of less than 300 nm and improved resistance to oxygen plasma etching.

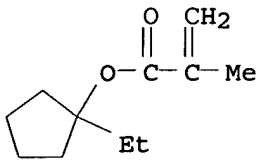
IT **648895-24-3P**
(silicon-containing polymer, resist composition for patterning process)

RN 648895-24-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with ethenylpentamethyldisiloxane and methyl ethenesulfonate (9CI) (CA INDEX NAME)

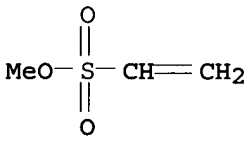
CM 1

CRN 266308-58-1
CMF C11 H18 O2



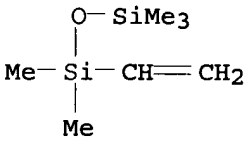
CM 2

CRN 1562-31-8
CMF C3 H6 O3 S



CM 3

CRN 1438-79-5
CMF C7 H18 O Si2



IC ICM H01B001-00
ICS C08J003-00
INCL 430311000; 252500000; 524262000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
IT 648895-18-5P 648895-19-6P 648895-20-9P 648895-21-0P
648895-22-1P 648895-23-2P **648895-24-3P** 648895-25-4P
648895-26-5P 648895-27-6P 648895-28-7P 648895-29-8P
648895-30-1P 648895-31-2P 648895-33-4P
(silicon-containing polymer, resist composition for patterning process)

L13 ANSWER 15 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:1007692 HCAPLUS
DOCUMENT NUMBER: 140:50319
TITLE: Photoacid generating compounds, chemically amplified positive resist materials, and pattern forming method
INVENTOR(S): Hatakeyama, Jun; Kobayashi, Tomohiro; Ohsawa, Youichi
PATENT ASSIGNEE(S): Japan
SOURCE: U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S. Pat. Appl. 2003 207,201.

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003235779	A1	20031225	US 2003-375773	2003 0227
US 2003207201	A1	20031106	US 2002-331785	2002 1227

PRIORITY APPLN. INFO.: JP 2001-397192 A 2001 1227
US 2002-331785 A2 2002 1227

OTHER SOURCE(S): MARPAT 140:50319

AB The invention provides a high-resolution resist material comprising an acid generator that has high sensitivity and high resolution with respect to high-energy rays of 300 nm or less, has small line-edge roughness, and is superior in heat stability and in shelf stability, and provides a pattern forming method that uses this resist material. The invention further provides a chemical amplified pos. resist material comprising a base resin, an acid generator and a solvent in which the acid generator generates an alkylimidic acid containing a fluorine group, and provides a pattern forming method comprising a step of applying the resist material to the substrate, a step of performing exposure to a high-energy ray of a wavelength of 300 nm or less through a photomask following heat treatment, and a step of performing development by a developing solution following heat treatment.

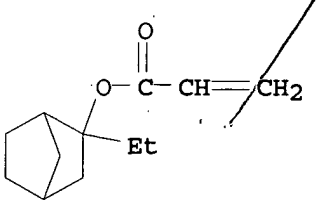
IT **635715-35-4**
(resin; chemical amplified pos. resist materials containing)

RN 635715-35-4 HCAPLUS

CN 2-Propenoic acid, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with ethenylpentamethyldisiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

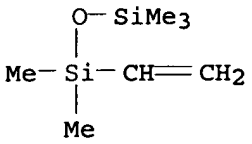
CM 1

CRN 449173-03-9
CMF C12 H18 O2



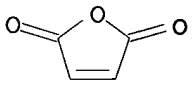
CM 2

CRN 1438-79-5
CMF C7 H18 O Si2



CM 3

CRN 108-31-6
CMF C4 H2 O3



IC ICM G03C001-492
INCL 430270100
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 155040-27-0 158593-28-3 177034-75-2 200808-68-0
279244-15-4 279244-59-6 301153-46-8 326925-68-2
330596-02-6 330596-03-7 485819-00-9 485819-02-1
490040-72-7 502442-15-1 595558-21-7 601520-54-1
601520-57-4 601520-62-1 623932-37-6 635715-32-1
635715-34-3 **635715-35-4** 635715-36-5 635715-38-7
635715-39-8
(resin; chemical amplified pos. resist materials containing)

L13 ANSWER 16 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:890212 HCAPLUS
DOCUMENT NUMBER: 139:388469
TITLE: Thionium salt photoacid generators for chemically amplified resists and patterning method using the same
INVENTOR(S): Osawa, Yoichi; Nishi, Tsunehiro; Kobayashi, Tomohiro
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003322964	A2	20031114	JP 2002-129876	

2002
0501

PRIORITY APPLN. INFO.: JP 2002-129876

2002
0501

OTHER SOURCE(S): MARPAT 139:388469

AB The photoacid generators R1R2S+CH2R3C:CR4R5.Y- (I; R1, R2 = C1-6 unsubstituted or O-containing alkyl; R3-R5 = H, C1-6 alkyl, C6-12 aryl; ≥1 of R3-R5 are C6-12 aryl; Y- = C1-10 alkylsulfonate, C6-20 arylsulfonate, C2-10 bisalkylsulfonylimide, C3-12 trisalkylsulonylmethide) or R1R2S+CH2C6H5-nR7n.Y- (II; R1, R2, Y- = same as above; R7 = H, C1-6 alkyl, C1-6 alkoxy, NO2, F, Cl; n = 1-5), and pos. resists containing I or II and resins increasing alkali solubility by acid action are sep. claimed. UV (≤250 nm) or electron-beam lithog. on the resists, producing submicron pattens with good edge sharpness, is further claimed.

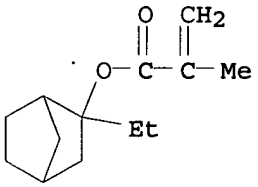
IT **623932-30-9**
(assumed monomers; chemical amplified pos. resists containing thionium salt photoacid generators for submicron UV or electron-beam lithog.)

RN 623932-30-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with 2,5-furandione and pentamethyldisiloxanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

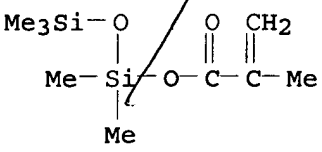
CM 1

CRN 330595-98-7
CMF C13 H20 O2



CM 2

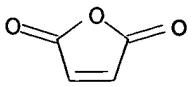
CRN 4880-04-0
CMF C9 H20 O3 Si2



CM 3

CRN 108-31-6

CMF C4 H2 O3

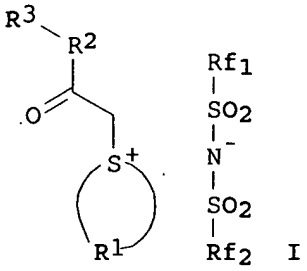


IC ICM G03F007-004
ICS G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 29, 38
IT 155040-27-0 301153-46-8 326925-68-2 330596-02-6
330596-03-7 485819-02-1 490040-72-7 595558-21-7
601520-54-1 601520-62-1 623932-20-7 623932-22-9
623932-23-0 623932-24-1 623932-26-3 623932-27-4
623932-29-6 **623932-30-9** 623932-32-1 623932-33-2
623932-35-4 623932-36-5 623932-37-6 623932-39-8
623932-41-2
(assumed monomers; chemical amplified pos. resists containing thionium salt photoacid generators for submicron UV or electron-beam lithog.)

L13 ANSWER 17 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:734749 HCAPLUS
DOCUMENT NUMBER: 139:267981
TITLE: Photosensitive acid-generating agent, chemically amplified positively-working photoresist material, and patterning method
INVENTOR(S): Hatakeyama, Jun; Kobayashi, Tomohiro; Osawa, Yoichi
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003261529	A2	20030919	JP 2002-369145	2002 1220
PRIORITY APPLN. INFO.:			JP 2001-397192 A	2001 1227

OTHER SOURCE(S): MARPAT 139:267981
GI



I

AB The acid-generating agent is a sulfonium salt represented as I [R1 = C2-8 alkylene; R2 = direct bond, O, N, C1-4 alkylene; R3 = (substituted) linear, branched, or cyclic alkyl, aryl; Rf1 and/or Rf2 = F-containing C1-20 linear, branched, or cyclic alkyl which may involve OH, carbonyl, ester, ether or aryl; Rf1 and Rf2 may form rings]. The chemical amplified pos. working photoresist contains, a base resin, a solvent, and an agent releasing an alkylimidic acid, preferably I or R4nM+ Rf1SO2NSO2Rf2- [R4 = linear, branched, or cyclic alkyl (involving carbonyl, ester, ether, thioether, or double bond), aryl, aralkyl; M = iodonium, sulfonium; n = 2, 3]. The photoresist material is applied on a substrate, heated, exposed to high-energy radiation with wavelength ≤300 nm through a photomask, heated, and developed to form a pattern. The pattern with high resolution, small line edge roughness, and heat and storage stability is obtained by the method.

IT **601520-59-6**
(photosensitive fluoroalkylimidic acid-generating agent for chemical amplified pos.-working photoresist material)

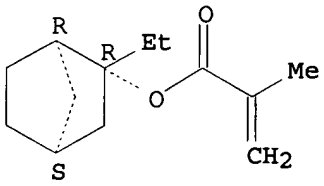
RN 601520-59-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, (1R,2R,4S)-2-ethylbicyclo[2.2.1]hept-2-yl ester, rel-, polymer with ethenylpentamethyldisiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

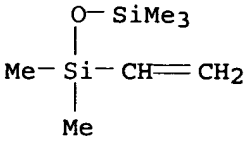
CRN 271598-68-6
CMF C13 H20 O2

Relative stereochemistry.



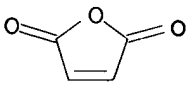
CM 2

CRN 1438-79-5
CMF C7 H18 O Si2



CM 3

CRN 108-31-6
CMF C4 H2 O3



IC ICM C07C311-48
ICS C07D333-46; C07D335-02; G03F007-004; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 23, 38
IT 155040-27-0 158593-28-3 177034-75-2 200808-68-0
279244-15-4 279244-59-6 290808-54-7 301153-46-8
326925-68-2 417702-19-3 485391-28-4 601520-52-9
601520-53-0 601520-54-1 601520-55-2 601520-56-3
601520-57-4 601520-58-5 **601520-59-6** 601520-60-9
601520-61-0 601520-62-1 601520-64-3 601520-65-4
601520-66-5
(photosensitive fluoroalkylimidic acid-generating agent for chemical amplified pos.-working photoresist material)

L13 ANSWER 18 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:868986 HCAPLUS
DOCUMENT NUMBER: 137:370796
TITLE: Radiation-sensitive polysiloxane resin composition
INVENTOR(S): Iwasawa, Haruo; Hayashi, Akihiro; Shimokawa, Tsutomu; Yamamoto, Masafumi
PATENT ASSIGNEE(S): JSR Co., Ltd., Japan
SOURCE: PCT Int. Appl., 155 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002090423	A1	20021114	WO 2002-JP4333	20020430

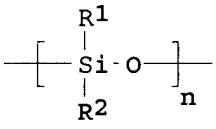
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI,

SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,
BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG

JP 2003020335	A2	20030124	JP 2002-48643	2002 0225
TW 594389	B	20040621	TW 2002-91108860	2002 0429
EP 1398339	A1	20040317	EP 2002-722907	2002 0430
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1505651	A	20040616	CN 2002-809212	2002 0430
US 2004143082	A1	20040722	US 2003-476453	2003 1031
PRIORITY APPLN. INFO.:			JP 2001-133795 A	2001 0501
			JP 2002-48643 A	2002 0225
			WO 2002-JP4333 W	2002 0430

OTHER SOURCE(S): MARPAT 137:370796

GI



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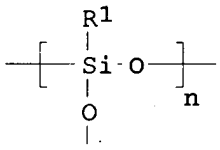


II

AB A radiation-sensitive resin composition excellent in sensitivity and resolution, is composed of (A) a polysiloxane resin exhibiting high transparency even at a wavelength ≤ 193 nm (particularly 157 nm), excellent dry etching resistance, Mw = 500 - 1,000,000, and PDI ≤1.5 which comprises units represented by the I and/or II and acid-dissociable groups (wherein R1 is a fluorinated or fluoroalkylated monovalent aromatic group or a fluorinated or fluoroalkylated monovalent alicyclic group; and R2 is a monovalent aromatic group described above, a monovalent alicyclic group described above, H, halogeno, a monovalent hydrocarbon group,

haloalkyl, or amino), and (B) a radiation-sensitive acid generator. Thus, 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, decahydro-6(or 7)-(triethoxysilyl)-, 1,1-dimethylethyl ester, 2-(2,2-ditrifluoromethylethyl)-norbornanyltriethoxysilane, and pentafluorophenyltriethoxysilane synthesized from pentafluorobenzene and tetraethoxysilane were polymerized to obtain a polysiloxane with transparent ratio at 157 nm 57.0 %, Tg 103°.

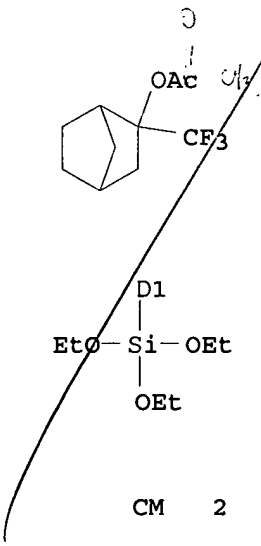
IT **474559-40-5P**
(radiation-sensitive polysiloxane resin composition)

RN 474559-40-5 HCAPLUS

CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, decahydro-6(or 7)-(triethoxysilyl)-, 1,1-dimethylethyl ester, polymer with 5(or 6)-(triethoxysilyl)-α,α-bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol and 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]hept-2-yl acetate (9CI) (CA INDEX NAME)

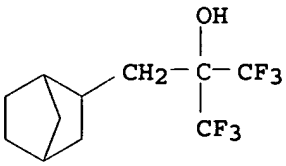
CM 1

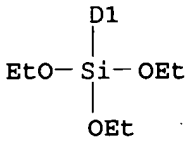
CRN 474559-08-5
CMF C16 H27 F3 O5 Si
CCI IDS



CM 2

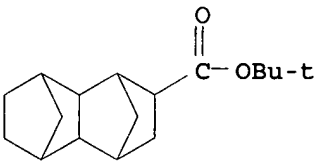
CRN 365546-74-3
CMF C17 H28 F6 O4 Si
CCI IDS

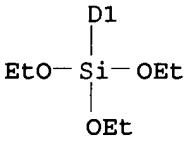




CM 3

CRN 365546-67-4
CMF C23 H40 O5 Si
CCI IDS

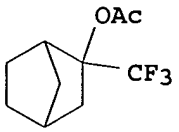


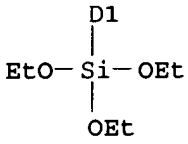


IT **474559-57-4P 474657-66-4P**
(radiation-sensitive polysiloxane resin composition)
RN 474559-57-4 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 5(or 6)-(triethoxysilyl)-α,α-bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol and 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]hept-2-yl acetate (9CI) (CA INDEX NAME)

CM 1

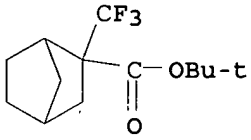
CRN 474559-08-5
CMF C16 H27 F3 O5 Si
CCI IDS

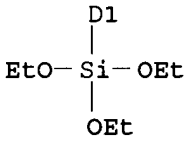




CM 2

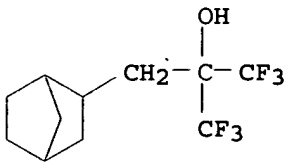
CRN 474559-06-3
CMF C19 H33 F3 O5 Si
CCI IDS

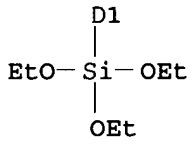




CM 3

CRN 365546-74-3
CMF C17 H28 F6 O4 Si
CCI IDS

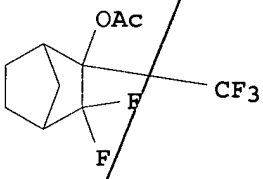


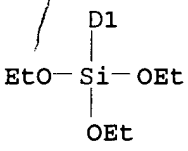


RN 474657-66-4 HCAPLUS
CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 3,3-difluoro-5(or 6)-(triethoxysilyl)-2-(trifluoromethyl)bicyclo[2.2.1]hept-2-yl acetate and 5(or 6)-(triethoxysilyl)-α,α-bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol (9CI) (CA INDEX NAME)

CM 1

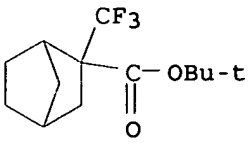
CRN 474559-49-4
CMF C16 H25 F5 O5 Si
CCI IDS

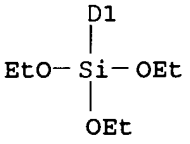




CM 2

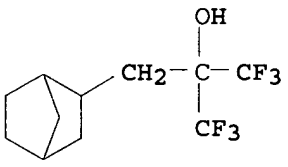
CRN 474559-06-3
CMF C19 H33 F3 O5 Si
CCI IDS

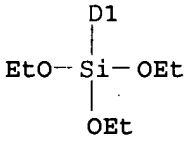




CM 3

CRN 365546-74-3
CMF C17 H28 F6 O4 Si
CCI IDS





IC ICM C08G077-24
ICS C08L083-08; G03F007-075; G03F007-039
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 35
IT 474559-32-5P 474559-33-6P 474559-34-7P 474559-35-8P
474559-36-9P 474559-37-0P 474559-38-1P 474559-39-2P
474559-40-5P 474559-41-6P 474559-42-7P 474559-43-8P
(radiation-sensitive polysiloxane resin composition)
IT 474559-53-0P 474559-54-1P 474559-55-2P 474559-56-3P
474559-57-4P 474559-58-5P 474559-59-6P 474657-62-0P
474657-63-1P 474657-64-2P 474657-65-3P **474657-66-4P**
474657-67-5P 474657-68-6P 474657-69-7P
(radiation-sensitive polysiloxane resin composition)
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 19 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:709220 HCAPLUS
DOCUMENT NUMBER: 137:255337

TITLE: Polymer in chemically amplified vacuum UV-sensitive resist composition and method for pattern formation using the same

INVENTOR(S): Hatakeyama, Jun; Takahashi, Toshiaki; Watanabe, Atsushi; Ishihara, Toshinobu; Sasako, Masaru; Endo, Masataka; Kishimura, Shinji; Otani, Michitaka; Miyazawa, Satoru; Tsutsumi, Kentaro; Maeda, Kazuhiko

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002268226	A2	20020918	JP 2001-70208	2001 0313

PRIORITY APPLN. INFO.: JP 2001-70208 2001 0313

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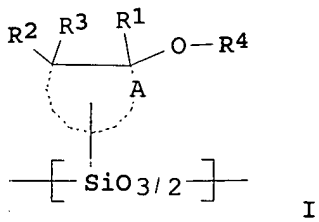


I

AB The title polymer has a repeating unit of structure I (A = divalent organic group; R1-3 = H, F, C1-4 alkyl; R4 = acid-sensitive group). The polymer provides photoresist of high sensitivity, high resolution, and good plasma etching-resistance.

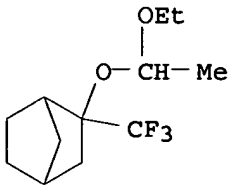
IT **460731-95-7P 460731-97-9P**
(polymer in chemical amplified vacuum UV-sensitive resist composition)

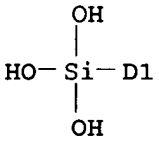
RN 460731-95-7 HCAPLUS

CN Silanetriol, [(1-ethoxyethoxy)(trifluoromethyl)bicyclo[2.2.1]hept-2-yl]-, polymer with [hydroxy(trifluoromethyl)bicyclo[2.2.1]hept-2-yl]silanetriol (9CI) (CA INDEX NAME)

CM 1

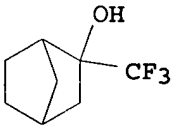
CRN 460731-94-6
CMF C12 H21 F3 O5 Si
CCI IDS

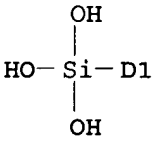




CM 2

CRN 460731-93-5
CMF C8 H13 F3 O4 Si
CCI IDS

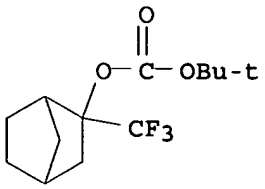


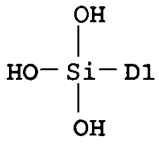


RN 460731-97-9 HCAPLUS
CN Carbonic acid, 1,1-dimethylethyl 2-(trifluoromethyl)-5(or 6)-(trihydroxysilyl)bicyclo[2.2.1]hept-2-yl ester, polymer with [hydroxy(trifluoromethyl)bicyclo[2.2.1]hept-2-yl]silanetriol (9CI) (CA INDEX NAME)

CM 1

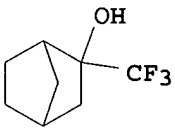
CRN 460731-96-8
CMF C13 H21 F3 O6 Si
CCI IDS

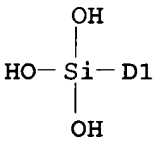




CM 2

CRN 460731-93-5
CMF C8 H13 F3 O4 Si
CCI IDS





IC ICM G03F007-039
ICS C08G077-24; C08K005-00; C08L083-08; G03F007-40; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
IT 460731-93-5P **460731-95-7P 460731-97-9P**
(polymer in chemical amplified vacuum UV-sensitive resist composition)

L13 ANSWER 20 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:688176 HCAPLUS
DOCUMENT NUMBER: 137:224121
TITLE: Copolymers containing allylsilane derivatives, their chemically amplified resist materials, and pattern formation thereof
INVENTOR(S): Hatakeyama, Jun; Takeda, Takanobu; Ishihara, Toshinobu; Kubota, Toru; Tonomura, Yoichi
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002256033	A2	20020911	JP 2001-56536	2001 0301

PRIORITY APPLN. INFO.: JP 2001-56536 2001 0301

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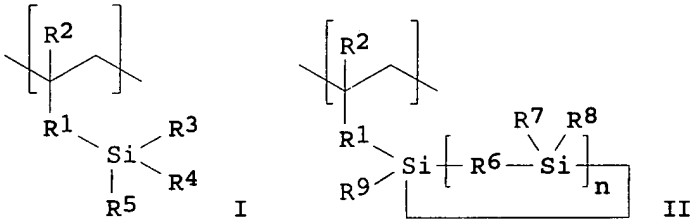
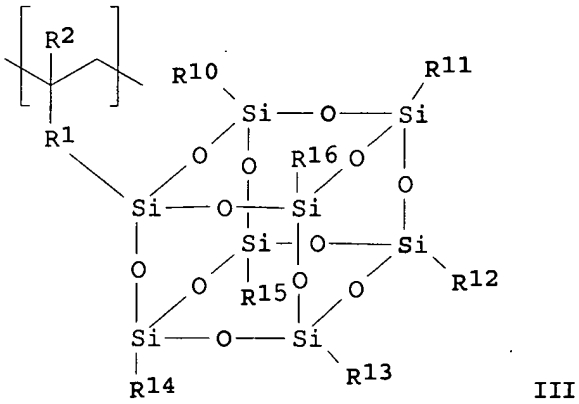


I II



III

AB The copolymers, useful for bilayer resists, contain ≥1 repeating units selected from I, II, and III (R1 = C1-10 linear, branched, or cyclic alkylene; R2 = H, C1-10 linear, branched, or cyclic alkyl; R3-R5 = C1-20 alkyl, haloalkyl, C6-20 aryl, Si-containing group which bond Si in the formula as siloxane bond or silalkylene bond; ≥1 of R3-R5 is Si-containing group; R6 = O, C1-10 linear, branched, or cyclic alkylene, arylene; R7-16 = C1-10 linear, branched, or cyclic alkyl, fluorinated alkyl, aryl; n = 2-10 integer). Preferably, the copolymers further contain repeating units based on maleic anhydride derivs and tetrafluoroethylene derivs. The copolymers may contain ≤90 mol% acid-unstable groups. The copolymers are useful for resist materials, especially chemical amplified resist materials which also

contain acid generators, organic solvents, dissoln. inhibitors, and bases. The resist materials are applied on substrates, heated, exposed to high-energy ray with wavelength ≤300 nm or electron beam via photomasks, heated if necessary, and developed to form patterns which may be further etched by using O plasma or Cl- or Br-containing halogen gases.

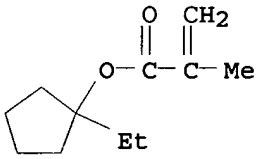
IT **455303-22-7P 455303-24-9P**
(chemical amplified resists containing copolymers of allylsilane derivs. for bilayer resist patterns)

RN 455303-22-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with 2,5-furandione and pentamethyl-2-propenyldisiloxane (9CI) (CA INDEX NAME)

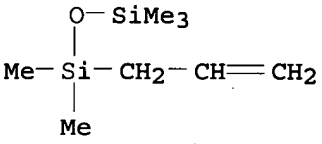
CM 1

CRN 266308-58-1
CMF C11 H18 O2



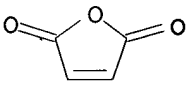
CM 2

CRN 7087-19-6
CMF C8 H20 O Si2



CM 3

CRN 108-31-6
CMF C4 H2 O3

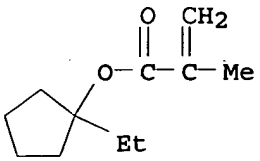


RN 455303-24-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with 1-methyl-1H-pyrrole-2,5-dione and pentamethyl-2-propenyldisiloxane (9CI) (CA INDEX NAME)

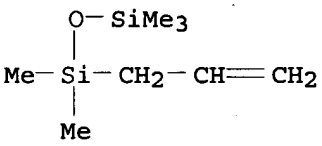
CM 1

CRN 266308-58-1
CMF C11 H18 O2



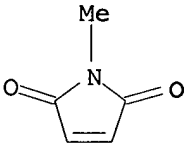
CM 2

CRN 7087-19-6
CMF C8 H20 O Si2



CM 3

CRN 930-88-1
CMF C5 H5 N O2



IC ICM C08F230-08
ICS C08F212-14; C08F214-00; C08F216-14; C08F220-10; C08F222-06; C08F222-40; C08F232-00; C08F234-00; C08K005-00; C08K005-16; C08L043-04; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT **455303-22-7P 455303-24-9P** 455303-26-1P
455303-28-3P 455303-30-7P 455303-32-9P 455303-34-1P
(chemical amplified resists containing copolymers of allylsilane derivs. for bilayer resist patterns)

L13 ANSWER 21 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:423002 HCAPLUS
DOCUMENT NUMBER: 136:402938
TITLE: Organic solvent-free fast-curing silicone compositions and release paper therefrom
INVENTOR(S): Ito, Hideyuki
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002161208	A2	20020604	JP 2000-360956	2000 1128

PRIORITY APPLN. INFO.: JP 2000-360956 2000 1128

AB The compns., showing proper peeling strength depending on peeling rate, satisfy intrinsic viscosity (η; at 25°) 50-600 mPa-s and comprise (A) organopolysiloxanes (R1R2SiO1/2)2+a(R2SiO)n(RSiO2/3)a (R1 = alkenyl; R = aliphatic unsatd. bond-free hydrocarbyl; 30 ≤ n ≤ 250; a = 0, 1; η 50-1000 mPa-s) 100, (B) diorganopolysiloxanes (HR2SiO1/2)2(R2SiO)m (R = aliphatic unsatd. bond-free hydrocarbyl, 2 ≤ m ≤ 20; η 2-30 mPa-s; mol. ratio of SiH based on alkenyls in A 0.3-0.8) 0.5-15.0, and (C) ≥3 (/mol.)-SiH-bearing organohydrogenpolysiloxanes (SiH mol. part based on alkenyls in A 0.4-3.0) 0.3-10.0 parts and contain (D) Pt-group metal catalysts. Thus, a composition comprising 100:3.3:1.5:0.3 (part) dimethylvinylsilyl-terminated di-Me siloxane (η 390 mPa-s), dimethylsilyl-terminated di-Me siloxane [η 5 mPa-s, (SiH)/(alkenyl in A) 0.5], Me H polysiloxane [(SiH)/(alkenyl in A) 1.3], and 1-ethynyl-1-cyclohexanol and containing a Pt-vinylsiloxane complex, showing curing time 15 s at 120°, was applied on polyethylene-laminated paper and cured to give release paper showing peeling strength 0.64 and 5.78 N/50 mm at peeling rate 0.3 and 60 m/min, resp.

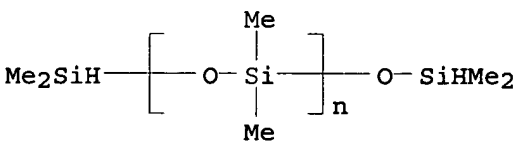
IT **431897-90-4P 431897-91-5P 431897-92-6P**
(alkenylsiloxane- and organohydrogen siloxane-based fast-curing release coatings for release paper with proper peelability)

RN 431897-90-4 HCAPLUS

CN Silanediol, methyl-, polymer with α-(dimethylsilyl)-ω-[(dimethylsilyl)oxy]poly[oxy(dimethylsilylene)], α-(ethenyldimethylsilyl)-ω-[(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 1-ethynylcyclohexanol (9CI) (CA INDEX NAME)

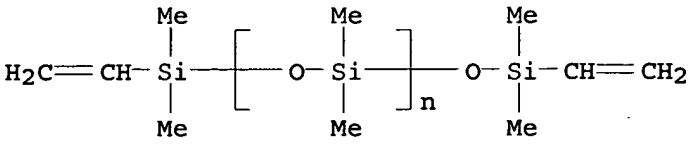
CM 1

CRN 115254-29-0
CMF (C2 H6 O Si)n C4 H14 O Si2
CCI PMS



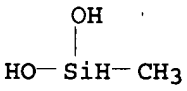
CM 2

CRN 59942-04-0
CMF (C2 H6 O Si)n C8 H18 O Si2
CCI PMS



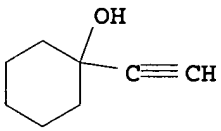
CM 3

CRN 43641-90-3
CMF C H6 O2 Si



CM 4

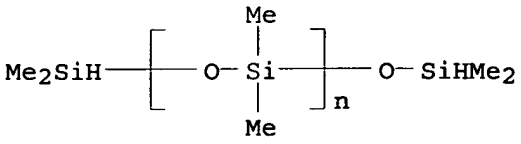
CRN 78-27-3
CMF C8 H12 O



RN 431897-91-5 HCAPLUS
CN Silanediol, dimethyl-, polymer with [(1,1-dimethyl-2-propenyl)oxy]trimethylsilane, α-(dimethylsilyl)-ω-[(dimethylsilyl)oxy]poly[oxy(dimethylsilylene)], α-(ethenyldimethylsilyl)-ω-[(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-ethynylcyclohexanol, α-hydro-ω-hydroxypoly[oxy(dimethylsilylene)] and methylsilanediol (9CI) (CA INDEX NAME)

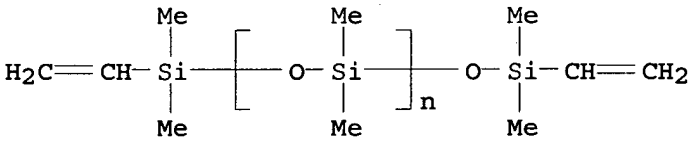
CM 1

CRN 115254-29-0
CMF (C2 H6 O Si)n C4 H14 O Si2
CCI PMS



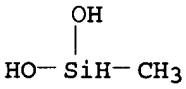
CM 2

CRN 59942-04-0
CMF (C2 H6 O Si)n C8 H18 O Si2
CCI PMS



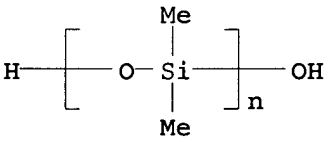
CM 3

CRN 43641-90-3
CMF C H6 O2 Si



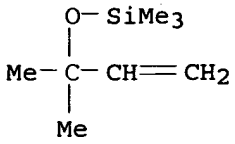
CM 4

CRN 31692-79-2
CMF (C2 H6 O Si)n H2 O
CCI PMS



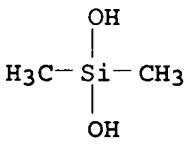
CM 5

CRN 19916-99-5
CMF C8 H18 O Si



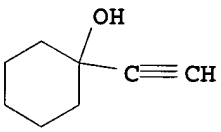
CM 6

CRN 1066-42-8
CMF C2 H8 O2 Si



CM 7

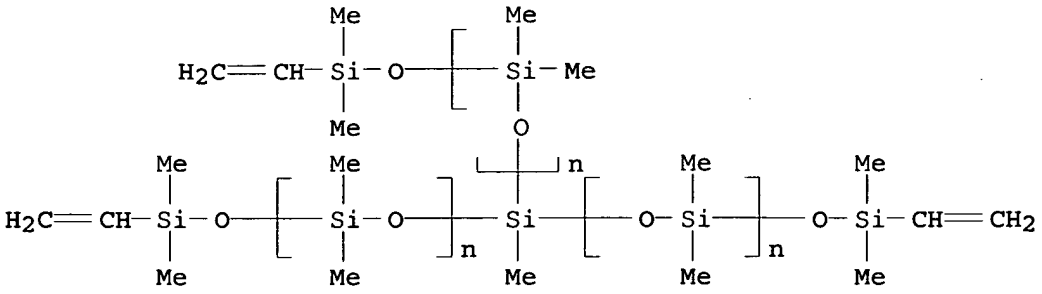
CRN 78-27-3
CMF C8 H12 O



RN 431897-92-6 HCAPLUS
CN Silanediol, methyl-, polymer with α-(dimethylsilyl)-ω-[(dimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-ethynylcyclohexanol and α,α',α''-(methylsilylidyne)tris[ω-[(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)]] (9CI) (CA INDEX NAME)

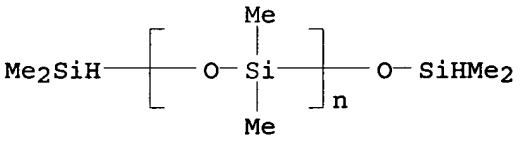
CM 1

CRN 217174-00-0
CMF (C2 H6 O Si)n (C2 H6 O Si)n (C2 H6 O Si)n C13 H30 O3 Si4
CCI PMS



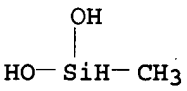
CM 2

CRN 115254-29-0
CMF (C2 H6 O Si)n C4 H14 O Si2
CCI PMS



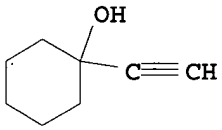
CM 3

CRN 43641-90-3
CMF C H6 O2 Si



CM 4

CRN 78-27-3
CMF C8 H12 O



IC ICM C08L083-07
ICS C09J183-04; C09J183-05; C09J183-07; D21H027-00; C08L083-07; C08L083-05
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 43
IT **431897-90-4P 431897-91-5P 431897-92-6P**

(alkenylsiloxane- and organohydrogen siloxane-based fast-curing release coatings for release paper with proper peelability)

L13 ANSWER 22 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:216336 HCAPLUS
DOCUMENT NUMBER: 136:254552
TITLE: Chemically amplified positive photoresist compositions with good oxygen plasma resistance and reduced edge roughness for high resolution patterns
INVENTOR(S): Mizutani, Kazuyoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002082437	A2	20020322	JP 2000-270090	2000 0906

PRIORITY APPLN. INFO.: JP 2000-270090 2000 0906

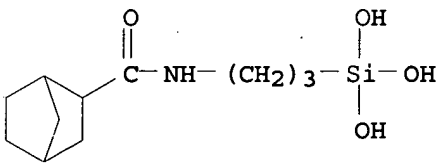
AB The pos. photoresist compns., useful for an upper layer of a two-layered resist, etc., contain acid-decomposable polysiloxanes comprising a repeating unit Si[(CH2)nL1M1CO2Q]O3/2 (L1 = AOCO, ACO2, ANHCO, AS, etc.; A, M1 = single linkage, arylene, divalent or bridged alicyclic group; n = 1-6; Q = H, acid-decomposable group generating carboxylic acid).

IT **404339-81-7**
(silsesquioxane-based chemical amplified pos. photoresists with good oxygen plasma resistance and reduced edge roughness)

RN 404339-81-7 HCAPLUS
CN Cyclohexanecarboxylic acid, 2-[[[3-(trihydroxysilyl)propyl]amino]carbonyl]-, 1-methylcyclohexyl ester, polymer with silicic acid (H4SiO4) and N-[3-(trihydroxysilyl)propyl]bicyclo[2.2.1]heptane-2-carboxamide (9CI) (CA INDEX NAME)

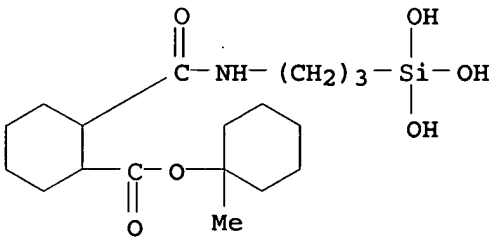
CM 1

CRN 404339-80-6
CMF C11 H21 N O4 Si



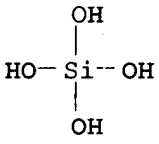
CM 2

CRN 404339-79-3
CMF C18 H33 N O6 Si



CM 3

CRN 10193-36-9
CMF H4 O4 Si



IC ICM G03F007-039
ICS C08G077-04; C08K005-00; C08L083-04; G03F007-004; G03F007-075; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT 404339-74-8 404339-76-0 404339-78-2 **404339-81-7**
(silsesquioxane-based chemical amplified pos. photoresists with good oxygen plasma resistance and reduced edge roughness)

L13 ANSWER 23 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:128963 HCAPLUS
DOCUMENT NUMBER: 136:191720
TITLE: Transparent ink-jet recording sheet for overhead projector
INVENTOR(S): Kishi, Hiroyoshi
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002052814	A2	20020219	JP 2000-244263	2000 0811

PRIORITY APPLN. INFO.: JP 2000-244263
2000
0811

AB The sheet has a transparent support comprising a polymer in which a Si oxide is bonded with saccharides via ≥1 of siloxane, urethane, urea, and amide bonds. It showed high transparency, low haze, and improved heat resistance and biodegradability.

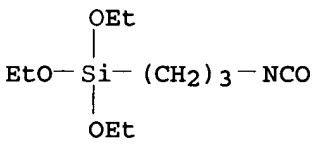
IT **399513-18-9P**, 3-Isocyanatopropyltriethoxysilane-sucrose-tetraethoxysilane copolymer
(transparent ink-jet printing sheet made of polymer prepared from silicon oxide and saccharide)

RN 399513-18-9 HCAPLUS

CN α-D-Glucopyranoside, β-D-fructofuranosyl, polymer with silicic acid (H4SiO4) tetraethyl ester and triethoxy(3-isocyanatopropyl)silane (9CI) (CA INDEX NAME)

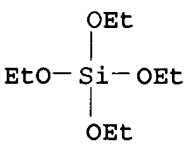
CM 1

CRN 24801-88-5
CMF C10 H21 N O4 Si



CM 2

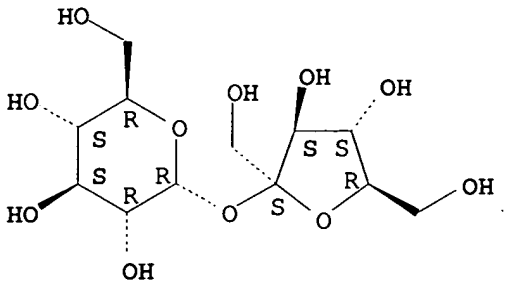
CRN 78-10-4
CMF C8 H20 O4 Si



CM 3

CRN 57-50-1
CMF C12 H22 O11

Absolute stereochemistry.



IC ICM B41M005-00
ICS B41J002-01
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 181784-51-0P, Acetylcellulose-tetramethoxysilane copolymer 399513-17-8P, Cellobiose-3-isocyanatopropyltriethoxysilane-tetraethoxysilane copolymer **399513-18-9P**, 3-Isocyanatopropyltriethoxysilane-sucrose-tetraethoxysilane copolymer 399513-19-0P, Maltopentaose-tetramethoxysilane copolymer 399519-25-6P, Acetyl cellulose-3-isocyanatopropyltriethoxysilane-tetramethoxysilane copolymer
(transparent ink-jet printing sheet made of polymer prepared from silicon oxide and saccharide)

L13 ANSWER 24 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:603578 HCAPLUS
DOCUMENT NUMBER: 135:187712
TITLE: Fluorinated acrylic polymer, chemically amplified resist using it, and its patterning
INVENTOR(S): Hatakeyama, Jun; Watanabe, Atsushi; Harada, Yuji
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001226432	A2	20010821	JP 2000-37403	2000 0216
PRIORITY APPLN. INFO.:			JP 2000-37403	2000 0216

AB The fluorinated acrylic polymer has a repeating unit of [CR1R2CR3(CO2R4)] [R1-R3 = H, F, C1-10 (fluorinated) alkyl; ≥1 of R1-R3 contains F; R4 = Si-containing group]. The resist contains the above polymer, an organic solvent, and an acid generator. Patterning is carried out by applying the above resist on a substrate via an organic film, heating the substrate, exposing with a ≤300-nm high-energy or electron beam via a

photomask, and developing with a developer optionally after heating, and treating the organic film with an O plasma etching apparatus The resist shows good plasma etching resistance and high sensitivity to high-energy beam, especially at wavelength ≤170 nm to give high-resolution patterns to be useful for ultra-large-scale IC (ULSI).

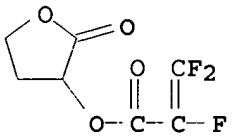
IT **355138-90-8P**
(fluorinated silyl-pendent acrylic polymer for chemical amplified pos.-working resist)

RN 355138-90-8 HCAPLUS

CN 2-Propenoic acid, 2,3,3-trifluoro-, 1-ethylcyclopentyl ester, polymer with 3-(pentamethyldisiloxanyl)propyl 2,3,3-trifluoro-2-propenoate and tetrahydro-2-oxo-3-furanyl 2,3,3-trifluoro-2-propenoate (9CI) (CA INDEX NAME)

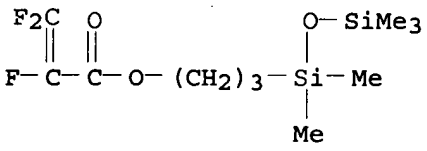
CM 1

CRN 355138-83-9
CMF C7 H5 F3 O4



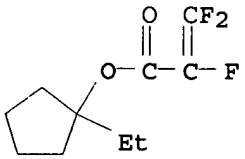
CM 2

CRN 355138-77-1
CMF C11 H21 F3 O3 Si2



CM 3

CRN 351492-85-8
CMF C10 H13 F3 O2



IC ICM C08F030-08
ICS G03F007-039; G03F007-075; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and

Other Reprographic Processes)
Section cross-reference(s): 38
IT 355138-84-0P 355138-85-1P 355138-86-2P 355138-88-4P
355138-89-5P **355138-90-8P** 355138-91-9P 355138-92-0P
(fluorinated silyl-pendent acrylic polymer for chemical amplified pos.-working resist)

L13 ANSWER 25 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:435090 HCAPLUS
DOCUMENT NUMBER: 135:5768
TITLE: Synthesis of sialylated oligosaccharide donors via sialylation and enzymic glycosidation
INVENTOR(S): Mehta, Seema; Gilbert, Michel; Wakarchuk, Warren W.; Whitfield, Dennis M.
PATENT ASSIGNEE(S): National Research Council of Canada, Can.
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042264	A1	20010614	WO 2000-CA1487	2000 1208

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-169945P P 1999 1210

AB A method for the synthesis of aryl thio glycosides comprising a sialylated residue of β-D-galactose is disclosed. The method consists of preparing by a chemical synthesis a non-sialylated aryl thio glycoside, and enzymically sialylating the latter with a sialic acid in the presence of a suitable sialyltransferase. The sialylated aryl thio glycoside is then chemical derivatized by standard procedures, to provide a derivative suitable for use as a donor in chemical syntheses of sialylated oligosaccharides. The derivatized sialylated aryl thio glycosides are prepared in high yields, due to reduced number of chemical and purification steps involved in the process. Derivatized aryl thio glycosides useful as building blocks for the synthesis of biol. active sialylated oligosaccharides are also disclosed. Thus, [Methyl (5-acetamido-4,7,8,9-tetra-O-acetyl-3,5-dideoxy-D-glycero-α-D-galacto-2-nonulopyranosyl)onate]-(2,3)-O-(2,4,6-tri-O-acetyl-β-D-galactopyranosyl)-(1,4)-3-O-acetyl-6-O-tert-butyldiphenylsilyl-2-deoxy-2-phthalimido-β-D-glucopyranoside was prepared via sialylation and enzymic

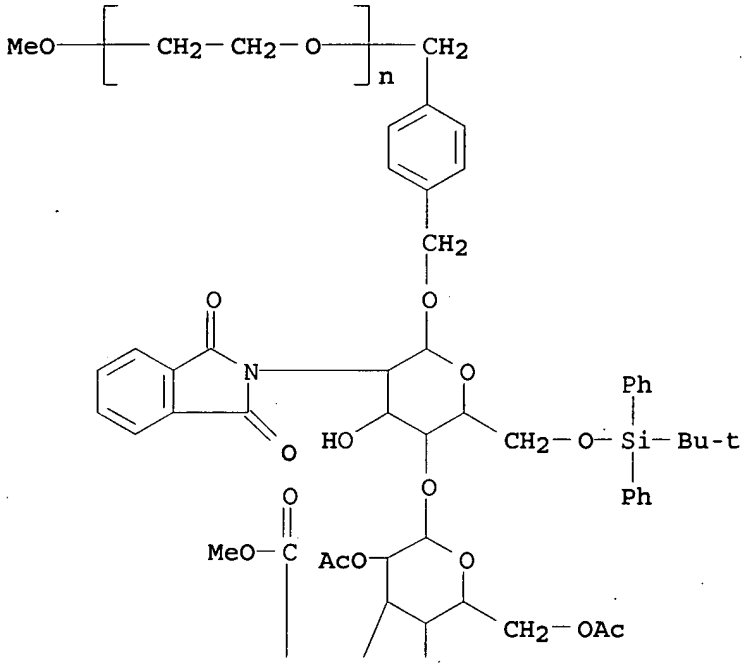
glycosidation reactions.

IT **342428-16-4P**
(synthesis of sialylated oligosaccharide donors via sialylation and enzymic glycosidation)

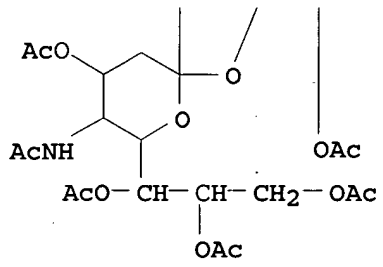
RN 342428-16-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[[4-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-α-neuraminosyl)-(2→3)-O-2,4,6-tri-O-acetyl-β-D-galactopyranosyl-(1→4)-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-[(1,1-dimethylethyl)diphenylsilyl]-β-D-glucopyranosyl]oxy]methyl]phenyl]methyl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC ICM C07H015-14
ICS C07H015-203; C07H015-20; C12P019-26

CC 33-8 (Carbohydrates)
Section cross-reference(s): 7, 9

IT 7464-38-2P 263712-07-8P **342428-16-4P**
(synthesis of sialylated oligosaccharide donors via sialylation and enzymic glycosidation)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

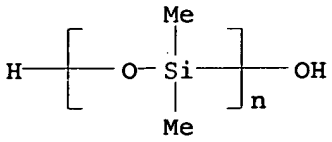
L13 ANSWER 26 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:86345 HCAPLUS
DOCUMENT NUMBER: 134:148830
TITLE: Silicone rubber compositions with low hardness and tension set
INVENTOR(S): Irie, Masakazu
PATENT ASSIGNEE(S): Dow Corning Toray Silicone Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001031868	A2	20010206	JP 1999-208416	19990723
PRIORITY APPLN. INFO.:			JP 1999-208416	19990723

AB The compns., giving cured products with Ascar C hardness 5-60, contain (A) 100 parts $RaSiO(4-a)/2$ [R = (un)substituted hydrocarbyl containing 0-0.08 mol% alkenyl; a = 1.95-2.05], (B) 0.01-10 parts organic compds. (mol. weight ≤10,000) containing 5-40% alkenyl or alkynyl group in a mol, (C) 5-500 parts inorg. fillers, and (D) organic peroxides. Thus, 100 parts a mixture containing silanol-terminated di-Me siloxanes 100, $MeSi[OSiMe2(CH:CH2)]3$ 0.15, and Aerosil 50 (fumed silica) 15 parts was mixed with 0.6 part 2,5-dimethyl-2,5-di(tert-butylperoxy)hexane and vulcanized to give a sheet with Ascar C hardness (JIS A 6050) 22 and tension set (JIS K 6301) 6%.
IT **323183-75-1P**
(rubber, vulcanized; silicone rubber compns. with low hardness and tension set)
RN 323183-75-1 HCAPLUS
CN Cyclohexanol, 1-ethynyl-, polymer with α-hydro-ω-hydroxypoly[oxy(dimethylsilylene)] (9CI) (CA INDEX NAME)

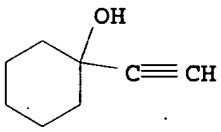
CM 1

CRN 31692-79-2
CMF (C2 H6 O Si)n H2 O
CCI PMS



CM 2

CRN 78-27-3
CMF C8 H12 O



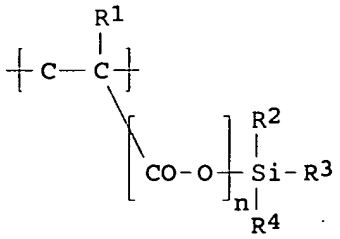
IC ICM C08L083-04
CC 39-9 (Synthetic Elastomers and Natural Rubber)
IT 323183-69-3P 323183-70-6P 323183-71-7P 323183-72-8P
323183-74-0P **323183-75-1P**
(rubber, vulcanized; silicone rubber compns. with low hardness and tension set)

L13 ANSWER 27 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:62635 HCAPLUS
DOCUMENT NUMBER: 134:123586
TITLE: Resist resin for chemically amplified resist resin composition suitable for excimer and electron beam lithography and method for pattern formation using same
INVENTOR(S): Fujiwara, Tadayuki; Wakisaka, Koya
PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001022076	A2	20010126	JP 1999-198165	19990712

PRIORITY APPLN. INFO.: JP 1999-198165 19990712

GI



I

AB The title resin becomes soluble in an alkali upon reacting with an acid and contains repeating unit I (R1 = H, F, Cl, alkyl, silyl; R2-4 = F, Cl, alkyl, alkoxy; n = 0, 1). The resin provides the improved dry-etching resistance.

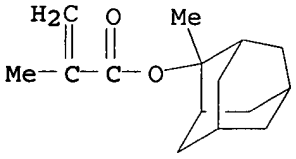
IT **321378-92-1P 321378-94-3P**, 2-Methyl-2-adamantylmethacrylate-β-methacryloxy-γ-butyrolactone-methacryloxypropyltrimethoxysilane copolymer
(resist resin for chemical amplified resist composition and method for pattern formation using same)

RN 321378-92-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate and [1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

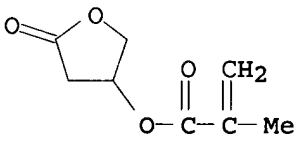
CM 1

CRN 177080-67-0
CMF C15 H22 O2



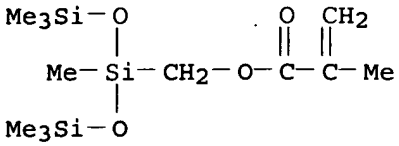
CM 2

CRN 130224-95-2
CMF C8 H10 O4



CM 3

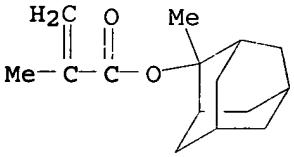
CRN 18166-40-0
CMF C12 H28 O4 Si3



RN 321378-94-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

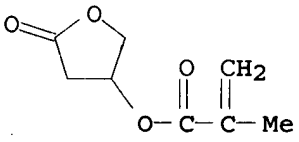
CM 1

CRN 177080-67-0
CMF C15 H22 O2



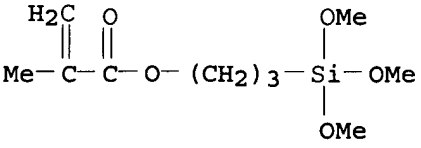
CM 2

CRN 130224-95-2
CMF C8 H10 O4



CM 3

CRN 2530-85-0
CMF C10 H20 O5 Si



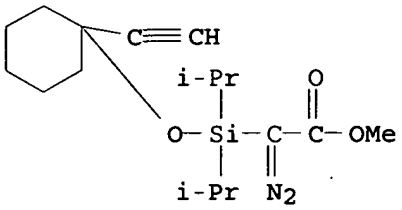
IC ICM G03F007-039

ICS C08F030-08; C08K005-16; C08K005-36; C08L043-04; G03F007-004; G03F007-033; G03F007-075; G03F007-38; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 321378-87-4P 321378-90-9P, p-tert-Butoxystyrene-p-hydroxystyrene-methacryloxypropyltrimethoxysilane copolymer **321378-92-1P** **321378-94-3P**, 2-Methyl-2-adamantylmethacrylate-β-methacryloxy-γ-butyrolactone-methacryloxypropyltrimethoxysilane copolymer
(resist resin for chemical amplified resist composition and method for pattern formation using same)

L13 ANSWER 28 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:337094 HCAPLUS
DOCUMENT NUMBER: 133:74062
TITLE: Macrocyclization of α-(alkynyloxy)silyl-α-diazoacetates by inter-/intramolecular [3+2] cycloaddition reaction sequences
AUTHOR(S): Maas, Gerhard; Gettwert, Volker; Krebs, Fred; Schmidtberg, Gunter
CORPORATE SOURCE: Abteilung Organische Chemie I. Universitat Ulm, Ulm, 89081, Germany
SOURCE: Chemistry--A European Journal (2000), 6(9), 1646-1655
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thermally induced intra-/intermol. [3+2] cycloaddn. reaction sequences of α-(alkynyloxy)silyl-α-diazoacetates 1 lead to [3.3](1,4)pyrazolophanes (2)2 and higher cyclooligomers thereof [(2)n, n > 2]. In most cases, the cyclodimer was isolated by crystallization, while a complete separation of the mixture of the higher cyclooligomers was not possible. Solid state structures of cyclodimers (2b)2 and (2c)2, cyclotrimer (2b)3, and cyclotetramer (2e)4 were determined by x-ray diffraction anal. Field-desorption mass spectra were used to characterize the cyclooligomer mixts. The relative amts. of the cyclooligomers depend on the substitution pattern of the diazo compound The cyclooligomerization reactions reported herein demonstrate, for the 1st time, the involvement of diazo functions in macrocyclization reactions via 1,3-dipolar cycloaddn.
IT **279694-27-8P**
(oligomeric)
RN 279694-27-8 HCAPLUS
CN Acetic acid, diazo[[(1-ethynylcyclohexyl)oxy]bis(1-methylethyl)silyl]-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 227805-11-0
CMF C17 H28 N2 O3 Si



CC 29-6 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 35, 75
IT **279694-27-8P** 279694-30-3P 279694-38-1P 279694-40-5P
(oligomeric)
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 29 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:405997 HCAPLUS
DOCUMENT NUMBER: 129:68161
TITLE: Preparation of (meth)acrylic ester random and block copolymers
INVENTOR(S): Muramoto, Hiroo; Yamase, Yukio; Nobuhara, Yukikazu; Matsumoto, Hitoshi; Shimizu, Yutaka
PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9825977	A1	19980618	WO 1997-JP4509	1997 1209
W: KR, SG, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 10226714	A2	19980825	JP 1997-354023	1997 1209
EP 942018	A1	19990915	EP 1997-946160	1997 1209
EP 942018	B1	20030312		
R: DE, FR, GB				
KR 2000057447	A	20000915	KR 1999-705074	1999 0608

PRIORITY APPLN. INFO.: JP 1996-344555 A 1996 1209
JP 1996-344557 A 1996

1209

WO 1997-JP4509 W

1997
1209

AB Random or block copolymers of (meth)acrylic ester prepared by anionic polymerization comprise structural units represented by general formulas [-CH2C(R1)(COOR3)-]m and [-CH2C(R2)(COOR4)-]n and have number-average mol. weight of 1000-50,000, weight-average mol. weight (Mw) to number-average mol. weight (Mn) ratio (Mw/Mn) of 1.00-1.40, and m to n ratio of 1/9-9/1 (wherein R1 and R2 each independently represents hydrogen or methyl; R3 represents an optionally substituted C7-15 alicyclic group or an alkyl group having the alicyclic group; and R4 represents hydrogen, an optionally substituted C1-12 alkyl, optionally substituted C3-6 alicyclic or heterocyclic group, or substituted silyl group having C1-8 alkyl and/or aryl groups). The copolymers have each a unimodal narrow mol. weight distribution and an essential skeleton having at least one segment with a controlled structure comprising (meth)acrylic ester units each having an organic group containing a bulky alicyclic group. Thus, a block copolymer having Mn = 9100, Mw/Mn = 1.1, and m/n = 25.1/25.3, was prepared by anionic polymerization of 1-adamantyl methacrylate in the presence of sec-butyllithium at -60° for 1 h, followed by continued reaction with t-Bu methacrylate for 1 h.

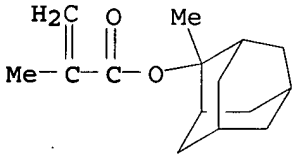
IT **209072-04-8DP**, t-Butyldiemthylsilyl methacrylate-tert-butyl methacrylate-2-methyl-2-adamantyl methacrylate copolymer, hydrolyzed **209072-04-8P**, t-Butyldiemthylsilyl methacrylate-tert-butyl methacrylate-2-methyl-2-adamantyl methacrylate copolymer
(preparation of (meth)acrylic ester random and block copolymers)

RN 209072-04-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with (1,1-dimethylethyl)dimethylsilyl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

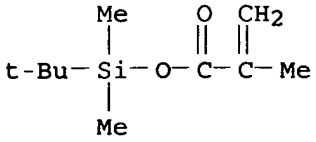
CM 1

CRN 177080-67-0
CMF C15 H22 O2



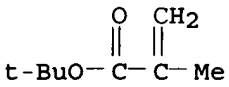
CM 2

CRN 105040-99-1
CMF C10 H20 O2 Si



CM 3

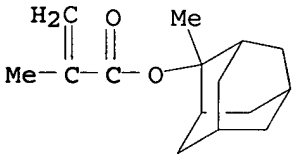
CRN 585-07-9
CMF C8 H14 O2



RN 209072-04-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with (1,1-dimethylethyl)dimethylsilyl 2-methyl-2-propenoate and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

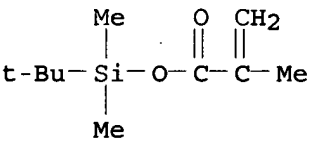
CM 1

CRN 177080-67-0
CMF C15 H22 O2



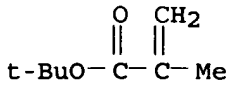
CM 2

CRN 105040-99-1
CMF C10 H20 O2 Si



CM 3

CRN 585-07-9
CMF C8 H14 O2



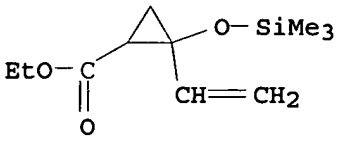
IC ICM C08F220-12
ICS C08F220-04; C08F008-12; C08F297-02
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 209071-97-6DP, 1-Adamantyl methacrylate-tert-butyl methacrylate block copolymer, hydrolyzed 209071-97-6P, 1-Adamantyl methacrylate-tert-butyl methacrylate block copolymer 209071-98-7P, 1-Adamantyl methacrylate-tert-butyl methacrylate-methyl methacrylate block copolymer 209071-99-8DP, tert-Butyl acrylate-isobornyl methacrylate-tetrahydropyranyl methacrylate block copolymer, hydrolyzed 209071-99-8P, tert-Butyl acrylate-isobornyl methacrylate-tetrahydropyranyl methacrylate block copolymer 209072-00-4P, tert-Butyl methacrylate-tetrahydropyranyl methacrylate-tricyclodecanyl methacrylate copolymer 209072-01-5P, tert-Butyl methacrylate-1-adamantylmethyl methacrylate-methyl methacrylate-3-oxocyclohexyl methacrylate block copolymer 209072-02-6P, tert-Butyl methacrylate-2-methyl-2-adamantyl methacrylate block copolymer 209072-03-7P, 1-Adamantyl methacrylate-tert-butyl methacrylate-cyclohexyl methacrylate-methyl acrylate copolymer **209072-04-8DP**, t-Butyldiemthylsilyl methacrylate-tert-butyl methacrylate-2-methyl-2-adamantyl methacrylate copolymer, hydrolyzed **209072-04-8P**, t-Butyldiemthylsilyl methacrylate-tert-butyl methacrylate-2-methyl-2-adamantyl methacrylate copolymer
(preparation of (meth)acrylic ester random and block copolymers)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 30 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:509819 HCAPLUS
DOCUMENT NUMBER: 121:109819
TITLE: Novel Poly(silyl enol ether)s via Radical Ring-Opening Polymerization and Their Conversion to Polyketones
AUTHOR(S): Mizukami, Shigeo; Kihara, Nobuhiro; Endo, Takeshi
CORPORATE SOURCE: Research Laboratory of Resources Utilization, Tokyo Institute of Technology, Yokohama, 227, Japan
SOURCE: Journal of the American Chemical Society (1994), 116(14), 6453-4
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
AB (1-Trimethylsiloxyvinyl)cyclopropane, 1-phenyl-2-(1-trimethylsiloxyvinyl)cyclopropane, and Et 2-trimethylsiloxy-2-vinylcyclopropane carboxylate undergo selective radical ring-opening polymerization to give polymers having silyl enol ether groups in the main chain. Acid-catalyzed hydrolysis of the polymers gave the corresponding polyketones.
IT **156907-77-6P**
(preparation and hydrolysis of)
RN 156907-77-6 HCAPLUS
CN Cyclopropanecarboxylic acid, 2-ethenyl-2-[(trimethylsilyl)oxy]-,

ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

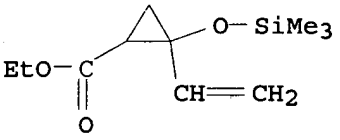
CRN 156907-76-5
CMF C11 H20 O3 Si



IT **156907-77-6DP**, hydrolyzed
(with polyketone structure, preparation and characterization of)
RN 156907-77-6 HCAPLUS
CN Cyclopropanecarboxylic acid, 2-ethenyl-2-[(trimethylsilyl)oxy]-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 156907-76-5
CMF C11 H20 O3 Si



CC 35-7 (Chemistry of Synthetic High Polymers)
IT 156907-73-2P 156907-75-4P **156907-77-6P**
(preparation and hydrolysis of)
IT 100-52-7DP, Benzaldehyde, reaction products with (trimethylsiloxyvinyl)cyclopropane homopolymer 156907-73-2DP, hydrolyzed 156907-75-4DP, hydrolyzed **156907-77-6DP**, hydrolyzed
(with polyketone structure, preparation and characterization of)

L13 ANSWER 31 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:628128 HCAPLUS
DOCUMENT NUMBER: 119:228128
TITLE: Chemically, weather- and scratch-resistant crosslinkable resin compositions for coatings
INVENTOR(S): Iwamura, Goro; Yamamura, Kazuo; Oooka, Masataka; Takezawa, Shoichiro
PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 05059289	A2	19930309	JP 1991-218632	1991 0829

PRIORITY APPLN. INFO.: JP 1991-218632 1991 0829

AB The compns. comprise (A) vinyl polymers bearing protective hemiacetal ester and/or hemiketal ester groups, (B) compds. or polymers bearing both epoxy and hydrolyzable silyl groups, and optionally curing catalysts. A copolymer of Bu acrylate (I), Bu methacrylate (II), 1-(isobutoxy)ethyl methacrylate, and styrene as A component was crosslinked with a I-II-glycidyl methacrylate-(methacryloyloxypropyl)trimethoxysilane-styrene copolymer at weight ratio 1000:360 to give a coating film with the desired properties.

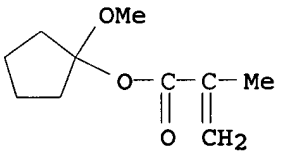
IT **150958-27-3**
(coatings, chemical, scratch- and weather-resistant)

RN 150958-27-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 1-methoxycyclopentyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

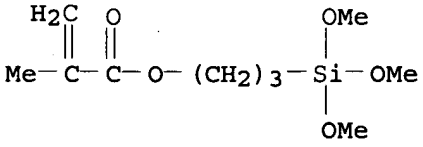
CM 1

CRN 143556-55-2
CMF C10 H16 O3



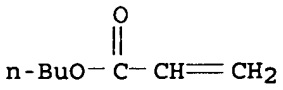
CM 2

CRN 2530-85-0
CMF C10 H20 O5 Si



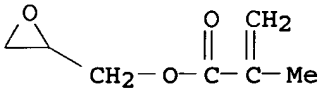
CM 3

CRN 141-32-2
CMF C7 H12 O2



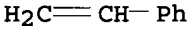
CM 4

CRN 106-91-2
CMF C7 H10 O3



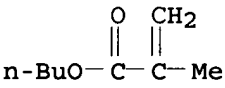
CM 5

CRN 100-42-5
CMF C8 H8



CM 6

CRN 97-88-1
CMF C8 H14 O2



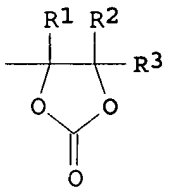
IC ICM C08L101-06
ICS C08K005-54; C08L101-10
CC 42-10 (Coatings, Inks, and Related Products)
IT 150958-23-9 150958-24-0 150958-25-1 150958-26-2
150958-27-3 150958-28-4 150958-29-5 150958-30-8
(coatings, chemical, scratch- and weather-resistant)

L13 ANSWER 32 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:605572 HCAPLUS
DOCUMENT NUMBER: 119:205572
TITLE: Thermosetting resin compositions for high-solids coating materials with good storability
INVENTOR(S): Iwamura, Goro; Takezawa, Shoichiro; Yamamura, Kazuo; Oooka, Masataka
PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05078551	A2	19930330	JP 1991-237989	1991 0918
JP 3067307	B2	20000717		
PRIORITY APPLN. INFO.:			JP 1991-237989	1991 0918

GI



I

AB The title compns. providing high-gloss coatings with good impact, acid, alkali, scratch, and weather resistance contain (A) vinyl copolymers containing I group (R1-3 = H, C1-4 alkyl) and (B) compds. having ≥2 active ester groups. To 500 parts xylene and 300 parts BuOH at 120° were added over 5 h a mixture of 2,3-carbonatopropyl methacrylate 300, Me methacrylate 200, styrene 200, and Bu methacrylate 300 parts and also a mixture of xylene 200, AIBN 10, and tert-butylperoxy 2-ethylhexanoate 20 parts, then further polymerized at the same temperature for 7 h to give a 50.4%-solids resin (II) with Gardener viscosity H-I and Mn 11,000. 1-Methoxy-1-methacryloyloxycyclobutane 328, styrene 300, and Bu methacrylate 372 parts were similarly polymerized to give a 50.2%-solids resin (III). A typical composition comprised II 1000, III 1000, trifluoromethanesulfonic acid 2.5, and trimethylbenzylammonium hydroxide 2.5 parts.

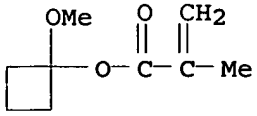
IT **150854-31-2 150854-33-4**
(coatings, with good impact, acid, alkali, scratch, and weather resistance)

RN 150854-31-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 1-methoxycyclobutyl 2-methyl-2-propenoate, (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate and trimethylsilyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

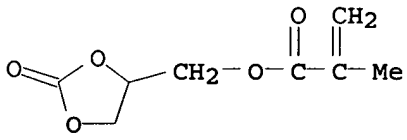
CM 1

CRN 150854-27-6
CMF C9 H14 O3



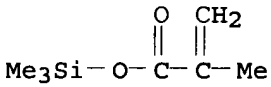
CM 2

CRN 13818-44-5
CMF C8 H10 O5



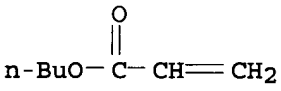
CM 3

CRN 13688-56-7
CMF C7 H14 O2 Si



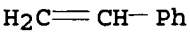
CM 4

CRN 141-32-2
CMF C7 H12 O2



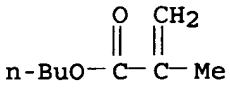
CM 5

CRN 100-42-5
CMF C8 H8



CM 6

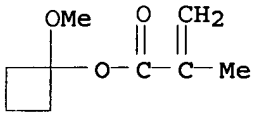
CRN 97-88-1
CMF C8 H14 O2



RN 150854-33-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 1-methoxycyclobutyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate and trimethylsilyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

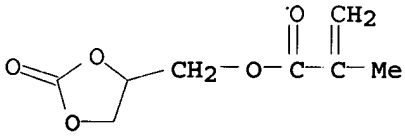
CM 1

CRN 150854-27-6
CMF C9 H14 O3



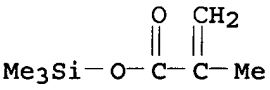
CM 2

CRN 13818-44-5
CMF C8 H10 O5



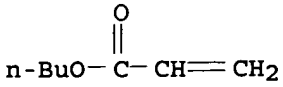
CM 3

CRN 13688-56-7
CMF C7 H14 O2 Si



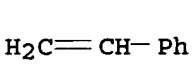
CM 4

CRN 141-32-2
CMF C7 H12 O2



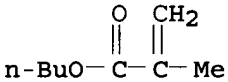
CM 5

CRN 100-42-5
CMF C8 H8



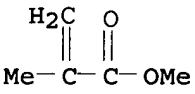
CM 6

CRN 97-88-1
CMF C8 H14 O2



CM 7

CRN 80-62-6
CMF C5 H8 O2



IC ICM C08L057-10
ICS C08K005-10
CC 42-10 (Coatings, Inks, and Related Products)
IT 150854-28-7 150854-29-8 150854-30-1 **150854-31-2**
150854-32-3 **150854-33-4**
(coatings, with good impact, acid, alkali, scratch, and weather resistance)

L13 ANSWER 33 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:202104 HCAPLUS
DOCUMENT NUMBER: 118:202104
TITLE: Manufacture of electrophotographic lithographic printing plate
INVENTOR(S): Kato, Eiichi; Ishii, Kazuo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04204552	A2	19920724	JP 1990-330629	19901130
PRIORITY APPLN. INFO.:			JP 1990-330629	19901130

AB A lithog. printing plate, comprising a conductive support, ≥1 photoconductor layer, and an uppermost surface layer containing a nonaq. resin particle dispersion, is manufactured by effecting imagewise exposure and development of the electrophotog. photoreceptor to form a toner image and desensitizing the non-image sections of the photoconductor layer by a solution which contains a hydrophilic compound containing a substituent with Pearson's nucleophilic constant ≥5.5. The non-aqueous resin particles are copolymer resin particles and are obtained by effecting dispersion polymerization of (a) a monofunctional polymer which contains formyl and/or R1OCHOR2 [R1,2 = hydrocarbon, organic residue from ring formation by R1 and R2] and is soluble in an non-aqueous solvent but being insol. upon polymerization with (b) another monofunctional polymer which is composed of a repeating unit containing Si- and/or F-containing substituent and is terminated with a1HC:Ca2V0- [V0 = O, COO< OCO, CH2OCO, CH2COO, SO2, CONR3, SO2NR3, C6H4, CONHCOO, CONHCONH; R3 = H, C1-18 hydrocarbon; a1,2 = H, halo, cyano, hydrocarbon, COOR4, COOR4 via hydrocabon; and R4 = H, hydrocarbon] at only one end of the backbone chain.

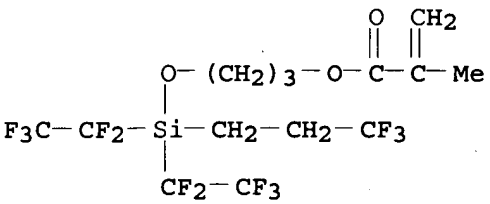
IT **146717-70-6P**
(preparation and use of, electrophotog. lithog. printing plate from, manufacture of)

RN 146717-70-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[bis(pentafluoroethyl)(3,3,3-trifluoropropyl)silyl]oxy]propyl ester, polymer with N-[2-(4-methoxy-4-methyl-2-oxetanyl)ethyl]-2-propenamide, graft (9CI) (CA INDEX NAME)

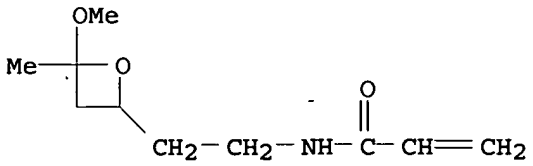
CM 1

CRN 146717-69-3
CMF C14 H15 F13 O3 Si



CM 2

CRN 146717-68-2
CMF C10 H17 N O3



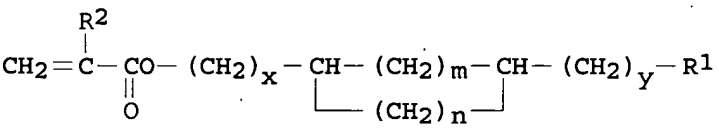
IC ICM G03G013-28
ICS G03G005-147
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 146615-72-7P 146615-74-9P 146615-76-1P 146615-78-3P
146615-80-7P 146615-81-8P 146615-82-9P 146615-85-2P
146717-62-6P 146717-63-7P 146717-64-8P 146717-66-0P
146717-67-1P **146717-70-6P**
(preparation and use of, electrophotog. lithog. printing plate from, manufacture of)

L13 ANSWER 34 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:520107 HCAPLUS
DOCUMENT NUMBER: 115:120107
TITLE: Manufacture of contact lenses from fluorinated copolymers
INVENTOR(S): Tanaka, Masahide; Koreishi, Hiroshi; Kuwabara, Masahiro; Kikuta, Yoshinori; Mitsuyama, Hideo
PATENT ASSIGNEE(S): Mitsui Petrochemical Industries, Ltd., Japan; Shido Contact Lens Kenkyusho K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03012411	A2	19910121	JP 1989-146234	19890608

PRIORITY APPLN. INFO.: JP 1989-146234 19890608

GI



I

AB Extended-wear contact lenses with improved O permeability and biocompatibility are manufactured with a composition containing siloxanyl

(meth)acrylate >10, meth(acrylate) monomer <30, and cyclic (meth)acrylic ester >1 weight %. The cyclic (meth)acrylic monomer has a formula of I, where R1 is H, OH, or OCOCR2:CH2; R2 is H or Me; x, y = 0-30; m = 0-10; n = 1-12; m + n = 1-22. Thus, siloxanyl methacrylate 93, Me methacrylate 20, trifluoroethyl methacrylate 35, and 1-hexafluoropropyl-1-cyclohexanol 3-methacrylate 3 parts were reacted in the presence of azobisisobutyronitrile and molded.

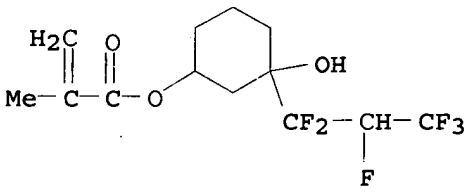
IT **135803-17-7P 135803-18-8P**
(preparation of, for contact lenses with improved oxygen permeability)

RN 135803-17-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(1,1,2,3,3,3-hexafluoropropyl)-3-hydroxycyclohexyl ester, polymer with methyl 2-methyl-2-propenoate, 2,2,2-trifluoroethyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

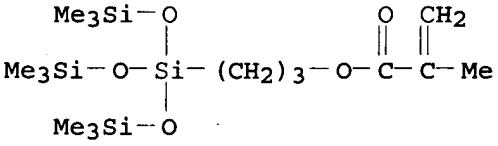
CM 1

CRN 134738-94-6
CMF C13 H16 F6 O3



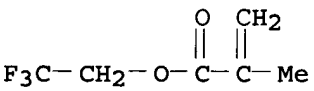
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



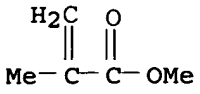
CM 3

CRN 352-87-4
CMF C6 H7 F3 O2



CM 4

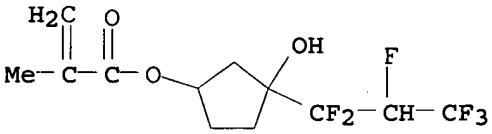
CRN 80-62-6
CMF C5 H8 O2



RN 135803-18-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(1,1,2,3,3,3-hexafluoropropyl)-3-hydroxycyclopentyl ester, polymer with methyl 2-methyl-2-propenoate, 2,2,2-trifluoroethyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

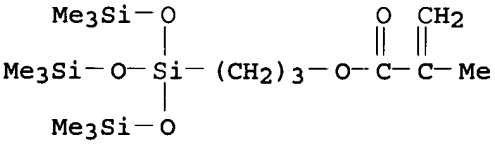
CM 1

CRN 135390-72-6
CMF C12 H14 F6 O3



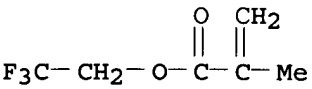
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



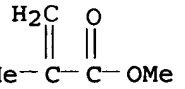
CM 3

CRN 352-87-4
CMF C6 H7 F3 O2



CM 4

CRN 80-62-6
CMF C5 H8 O2



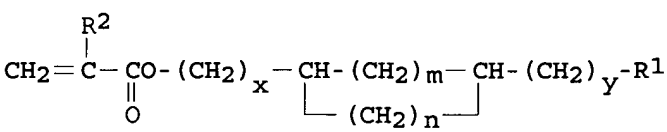
IC ICM C08F230-08
ICS C08F220-22; C08F299-08; G02C007-04
ICA C08F220-12
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38
IT **135803-17-7P 135803-18-8P** 135834-30-9P
(preparation of, for contact lenses with improved oxygen permeability)

L13 ANSWER 35 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:499375 HCAPLUS
DOCUMENT NUMBER: 115:99375
TITLE: Manufacture of contact lenses from fluorinated copolymers
INVENTOR(S): Tanaka, Masahide; Koreishi, Hiroshi; Kuwabara, Masahiro; Kikuta, Yoshinori; Mitsuyama, Hideo
PATENT ASSIGNEE(S): Mitsui Petrochemical Industries, Ltd., Japan; Shido Contact Lens Kenkyusho K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03009909	A2	19910117	JP 1989-146233	19890608

PRIORITY APPLN. INFO.: JP 1989-146233 19890608

GI



I

AB A long-lasting contact lens with improved O permeation and biocompatibility is manufactured with a composition containing siloxanyl (meth)acrylate > 10, (meth)acrylate monomer < 30, fluorintaed styrene monomer > 3, and cyclic (meth)acrylate ester monomer > 1 weight%. The cyclic (meth)acrylate ester has a formula of I, where

R1 is H, OH or OCOC(R2)CH2; R2 is H, Me; x, y is 0-30; m is 1-10; n is 1-12; and m + n = 1-22. Thus, siloxanyl methacrylate 90, methacrylic acid 8, pentafluorostyrene 10 and 1-hexafluoropropyl-1-cyclohexanol 3-methacrylate 3 weight parts were reacted in the presence of azobisisobutyronitrile, molded, and made into lenses.

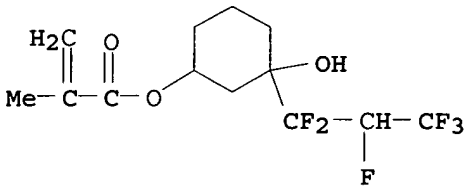
IT **135390-70-4**
(contact lens manufacture with, oxygen permeation in relation to)

RN 135390-70-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 3-(1,1,2,3,3,3-hexafluoropropyl)-3-hydroxycyclohexyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

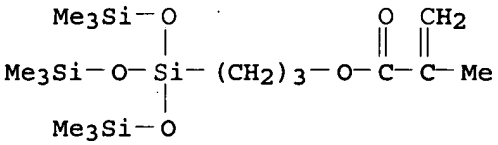
CM 1

CRN 134738-94-6
CMF C13 H16 F6 O3



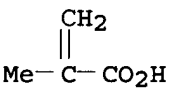
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



CM 3

CRN 79-41-4
CMF C4 H6 O2



IT **135390-71-5P 135390-73-7P**
(preparation of, for manufacturing contact lenses with improved oxygen permeation)

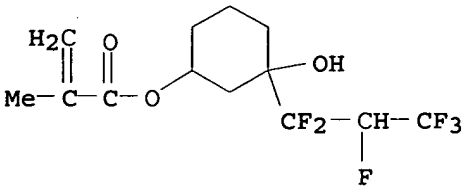
RN 135390-71-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylpentafluorobenzene, 3-(1,1,2,3,3,3-hexafluoropropyl)-3-

hydroxycyclohexyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

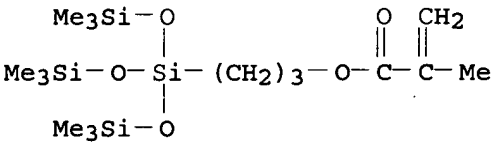
CM 1

CRN 134738-94-6
CMF C13 H16 F6 O3



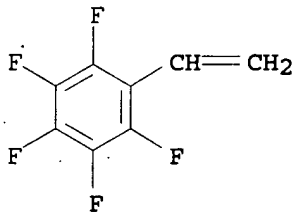
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



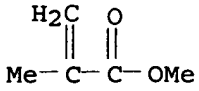
CM 3

CRN 653-34-9
CMF C8 H3 F5



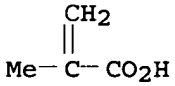
CM 4

CRN 80-62-6
CMF C5 H8 O2



CM 5

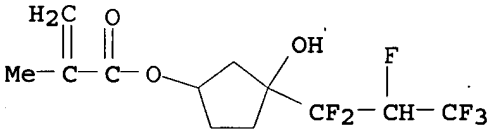
CRN 79-41-4
CMF C4 H6 O2



RN 135390-73-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylpentafluorobenzene, 3-(1,1,2,3,3,3-hexafluoropropyl)-3-hydroxycyclopentyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

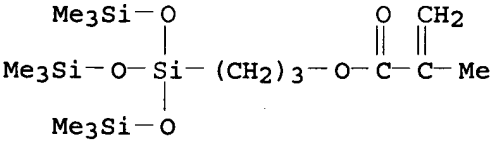
CM 1

CRN 135390-72-6
CMF C12 H14 F6 O3



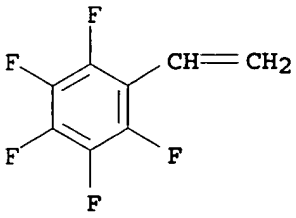
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



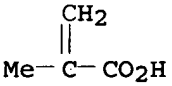
CM 3

CRN 653-34-9
CMF C8 H3 F5



CM 4

CRN 79-41-4
CMF C4 H6 O2



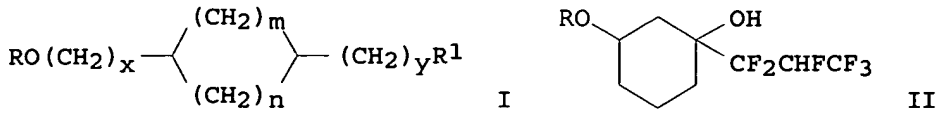
IC ICM C08F230-08
ICS C08F220-22; C08F299-08; C08L027-12; G02C007-04
ICA C08F220-12
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38
IT **135390-70-4**
(contact lens manufacture with, oxygen permeation in relation to)
IT 134926-01-5P **135390-71-5P 135390-73-7P**
135390-75-9P
(preparation of, for manufacturing contact lenses with improved oxygen permeation)

L13 ANSWER 36 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:448915 HCAPLUS
DOCUMENT NUMBER: 115:48915
TITLE: Preparation of alicyclic alcohols and their derivatives for copolymers useful as medical devices
INVENTOR(S): Tanaka, Masahide; Kuwabara, Masahiro
PATENT ASSIGNEE(S): Mitsui Petrochemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03011025	A2	19910118	JP 1989-146191	1989 0608

PRIORITY APPLN. INFO.: JP 1989-146191 1989 0608

OTHER SOURCE(S): MARPAT 115:48915
GI



I II

AB The title alcs. and their (meth)acrylates [I; R = H, (meth)acryloyl; R1 = H, OH, (meth)acryloyloxy; m = 0-10; n = 1-12; x, y = 0-30], useful as monomer for copolymers in such oxygen-permeable medical devices as contact lens, are prepared CF3CF:CF2 was pressurized into a solution of 1,3-cyclohexanediol and (Me3C)2O2 (radical initiator) in PhCl with heating at 120° to give 69% cyclohexanediol II (R = H), which (77 g) was treated with 90 g H2C:CMeCOCl and Et2N in THF under N to give 92 g monoester (II; R = methacryloyl) (III). A copolymer consisting of 90:40:5 H2C:CMe2CO2(CH2)3Si(OSiMe3)3, Me methacrylate, and III showed a DK value (oxygen-permeability coefficient) of 50.6, vs 12.0 with a copolymer containing ethylene glycol dimethacrylate instead of III.

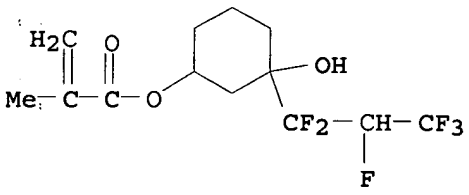
IT **134738-95-7P**
(preparation of, for oxygen-permeable contact lenses)

RN 134738-95-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(1,1,2,3,3,3-hexafluoropropyl)-3-hydroxycyclohexyl ester, polymer with methyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

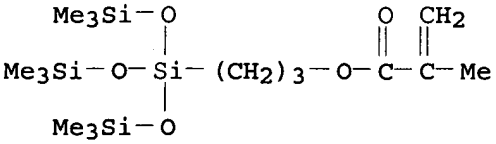
CM 1

CRN 134738-94-6
CMF C13 H16 F6 O3



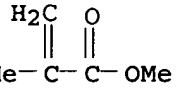
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



CM 3

CRN 80-62-6
CMF C5 H8 O2



IC ICM C07C031-44
ICS C07C029-44; G02C007-04
ICA C08F020-22
CC 24-6 (Alicyclic Compounds)
Section cross-reference(s): 36, 63
IT **134738-95-7P**
(preparation of, for oxygen-permeable contact lenses)

L13 ANSWER 37 OF 37 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:601422 HCAPLUS
DOCUMENT NUMBER: 113:201422
TITLE: Electrophotographic lithographic plate materials containing photoconductive layers
INVENTOR(S): Kato, Eiichi; Ishii, Kazuo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02129645	A2	19900517	JP 1988-282320	1988 1110
JP 2557697	B2	19961127		

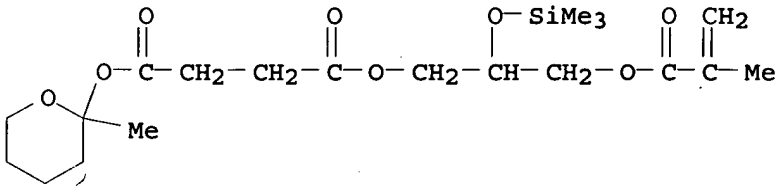
PRIORITY APPLN. INFO.: JP 1988-282320 1988 1110

AB In the title plate material having at least on an elec. conductive support a photoconductive layer containing a photoconductive compound and a binder resin for use in making a printing plate by imagewise exposure of the plate material, forming a toner image, and removing the nonimage area of the photoconductive layer saving the toner image area, more than 1 functional group contained in ≥1 polymer contained in the binder resin of the photoconductive layer produces ≥1 OH group and ≥1 CO2H group by decomposition
IT **130206-77-8**
(binders, electrophotog. lithog. plate materials with photoconductive layers containing)
RN 130206-77-8 HCAPLUS
CN Butanedioic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-2-

[(trimethylsilyl)oxy]propyl tetrahydro-2-methyl-2H-pyran-2-yl ester, polymer with (2-chlorophenyl)methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

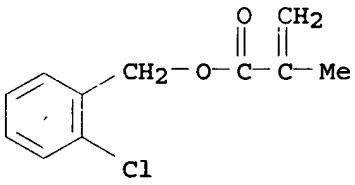
CM 1

CRN 130206-76-7
CMF C20 H34 O8 Si



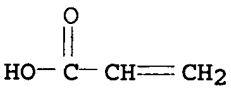
CM 2

CRN 46319-98-6
CMF C11 H11 Cl O2



CM 3

CRN 79-10-7
CMF C3 H4 O2



IC ICM G03G005-05
ICS G03G005-06; G03G013-26
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **130206-77-8** 130206-80-3 130224-75-8 130224-76-9
130224-96-3 130224-98-5 130225-00-2 130225-02-4
130225-03-5 130225-05-7 130225-06-8 130250-14-5
130277-46-2
(binders, electrophotog. lithog. plate materials with photoconductive layers containing)